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ABSTRACT

This project report describes the Utah Natural Resources and Land Use Information System, designed and implemented to establish a systematic process for the collection, organization and subsequent availability of land use planning sources and pertinent materials for use by citizens, planners and elected officials. It presents the general system description upon which the project was based in 1973-1974. The report also describes project implementation and subsequent changes in objectives, constraints, and organization. Sections summarize activities undertaken to (1) establish the bibliographic guidelines and collection, (2) obtain bibliographic collection statistics, (3) develop indexing processes and a land use and resource management thesaurus, and (4) develop computer system and on-line retrieval capabilities. Public relations, regional library development, conclusions and recommendations are also covered. The appendices include sample indexes, computer program documentation, a list of participating agencies, and sample user requests filled through the system. (KP)

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A Report on the Development of a Natural Resources and Land Use Information System for the Rural Areas of Utah

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by

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Introduction and Project Summary

Planning for land use and resource development is a complex undertaking. It involves a host of natural resource, socio-economic and political considerations. Yet resource managers and planners are often forced to plan with a minimum of this type of information. The result is often fragmentary, noncomplementary land use patterns and environmental degradation.

Private land owners, the general public, and local officials are not sufficiently involved in the planning process or choice of alternatives. Private planners are often unable to optimize the technological input and expertise of state and federal resource agencies. Local plans sometimes disregard large scale resource systems such as watersheds or flood plains and often fail to include cultural, historical, and economic complexities in their designs. What it adds up to is an inadequate communication between planners designing land use systems, resource professionals possessing invaluable land, air, and water data, experts in disciplines such as economics and sociology, and local governments and their constituent publics who hold the key to land use planning implementation.

What is needed, then, is a mutual exchange of information and expertise among all these people and coordination of their efforts for sound land use policy for the state of Utah.

In 1971 an experimental program was initiated to explore ways to provide a data base that could facilitate a meaningful land use program in Heber Valley. It was found that much data is necessary for planners, citizens, resource professionals, and policy and decision makers to

weigh and select logical land use alternatives. Information should include land and water, wildlife, social, historical, aesthetic, economic and other pertinent data.

Fulfillment of these needs began in Fall of 1973 with the development of the Utah Natural Resources and Land Use Information System. The system funded by the Kellog and Rockefeller foundations under the direction of the Merrill Library, Utah State University, was designed to locate, make available, identify, and index land use planning sources for the state and its component planning regions.

The purpose of this system is to develop a systematic, dynamic process for the selection, evaluation, storage, acquisition and retrieval of natural resources and land use data by:

(1) Locating and identifying existing documents and resources pertinent to land use planning in Utah.

(2) Indexing identified information so that data is usable and retrievable.

(3) Identifying a mass of sources so that planners, consultants, and citizens, have access to the same basic information and services for common use.

(4) Creating an information organization to facilitate the identification, organization, selection, and housing of information in each multi-county area.

In order to identify and locate documents pertinent to land use in Utah, a list of basic libraries, state and federal agencies, private planners, and consultants was compiled. The scope of the bibliographic collection eventually grew to include all resource documents dealing with

the natural resources, history, economics, and demography of the state and was the beginning of the information base.

A term relationship listing was developed to tie related terms together and to help the user come into coincidence with terms likely to appear as indexing terms. Each document is indexed by key words as they appear in the document title. Geographic indexing was also implemented, utilizing names of watersheds, named planned units, counties, multi-counties, cities, towns, rivers, and other physiographic features. Final bibliographic output included:

(1) Author Index

(2) Title Index

(3) Subject Index

(4) Geographic Index

(5) Listings of documents by contributing library or agency

(6) Listing of documents by multi-county region

(7) An integrated statewide bibliography

In order to make documents available where and when they are needed, a statewide planning library concept was developed. Each region is to ultimately have its own regional planning library composed primarily of materials pertinent to the region. Organization and indexing of the regional materials is facilitated by the creation of computer-produced regional bibliographies.

The grant from the Rockefeller foundation focused primarily on the development of an information system for the Wasatch Front Regional Council. This program was designed as a prototype for the rest of the state. As such, the vast majority of the basic guidelines for project implementation

are a result of experience with the Wasatch Front. As guidelines were established implementation began on a statewide basis and the projects for the Wasatch Front and the other six associations of government were administered as a single project. Hence the format of this final report is identical for both projects. This should be useful since there were some distinctly different problems in terms of organization and collection of information in rural areas as opposed to the more urban Wasatch Front.

The project has functioned as a subset of a larger experimental process referred to as a community oriented planning process. As such staff working with the development of the information system have had the opportunity of developing a user oriented information system in the context of a real planning process and have had to deal with many demand needs for resource information. One of the real strengths of the overall program as conceived and administered is that it has not operated in a vacuum but has been an integral part of planning activities throughout the state on federal, state, multi-county, county and community levels.

The report is organized in three main sections. The first section, the general system description, is the working document upon which the system was based and describes the system as conceived in 1973 and early 1974. Section two, dealing with implementation and experience, is reflective of what happened when the concept was applied. The third section includes the appendix and contains a considerable amount of pertinent information necessary to a complete understanding of the project but too cumbersome to include in the text.

General System Description

The primary objective of the Natural Resources and Land Use Information System is to establish a systematic process for the collection, organization and subsequent availability of data for evaluation by citizens, planners, and elected officials. In simple terms, the system is designed to identify and locate pertinent materials used in the planning process.

Specific objectives of the system are:

1. To determine what types of data are needed to facilitate the comprehensive planning process.

2. To compile a bibliography of the pertinent planning material available for each multi-county area.

3. To develop a dynamic process for collection and selection of land use planning and natural resources information.

4. To develop a functional method of processing collected information for computer storage and retrieval.

5. To develop a dynamic process for indexing documents and services cited in the bibliography.

6. To create a bibliography of comprehensive planning materials adequately indexed by subject and geographic locality and distribute the same to the multi-county association of governments and state and federal agencies.

7. To organize and establish regional planning libraries in the offices of the multi-county associations of government.

8. To develop advertising and instructional programs to facilitate the use of the regional libraries.

9. To develop a regular program to train staff responsible for the library in each multi-county.

10. To develop a system for reference and bibliographic inquiry services for Utah communities dealing with land use planning problems.

11. To obtain copies of needed planning documents for the regional libraries by purchase, copying or microfilming.

Some of the anticipated constraints are:

1. Lack of adequate co-operation and organization among planning professionals and state and federal agencies.

2. Resistance to cooperative efforts by local government entities and the multi-county coordinating body.

3. Failure of agencies of state and federal government to input new planning materials into the system as they become available.

4. Lack of adequate funding and staff time to adequately index documents included in the bibliography.

5. Inherent difficulty of selecting indexing terms that correspond with user inquiries.

6. Conflict between agency priorities and information system requirements.

7. Time.

8. Inability of agency personnel to implement the screening process.

Organizationally the system is dependent upon bibliographic input by planners and professionals in state and federal agencies within Utah and bibliographic coordination by the Merrill Library at USU, hereinafter referred to as the data control center. Bibliographic input will be provided by all agencies of state government at their respective central offices and also by federal agency offices located within the seven multi-county associations of government (hereinafter referred to as AOG) within the state. Specific agency inputs include:

1. Assistance with scope determination.

2. Data identification and location.

3. Data selection and screening.

4. Data collection, evaluation and interpretation.

The state is divided into seven associations of government and within each of these groups there is a lay committee charged with natural resource and land use concerns. Many of the associations have appointed

a multi-disciplinary technical advisory body with varying charges but most of these have been associated with the development of the state water plan and inventory. It is through these groups and an expanded Area Rural Development Committee, which exists in all associations, that the basic task of creating the bibliography will take place.

Philosophically these technical groups are responsive to the directed needs of local government. The initiation of the system is projected as an outgrowth of agency interest and a direct charge from the multi-county association of governments.

The general system description is illustrated in Figure 1.

The plan of work for project operation follows in Figure 2.

Ultimately each of the seven associations of government in the state will have a regional library housing a bibliography and collection of data pertinent to planning needs in the multi-county area.

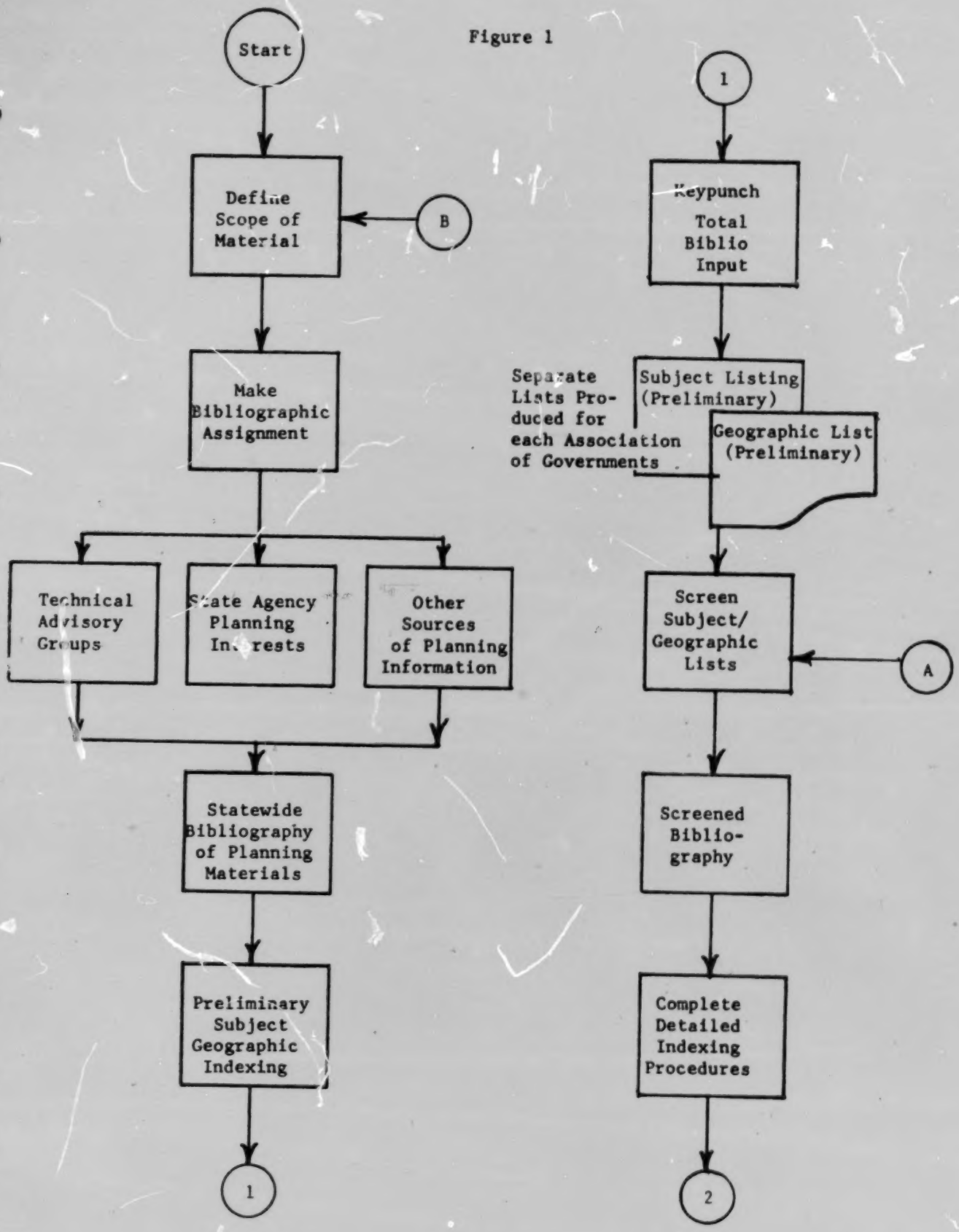
Type of Information To Be Included

Initially the scope of the bibliography was to be limited to natural resources data. This was broadened to include all pertinent current and historical reports, books, maps, overlays, letters of transmittal, etc., containing information as listed in Figure 3.

Bibliographic Guidelines

In order to insure standardized procedures for the compilation of the bibliography two basic documents are necessary. A general statement in lay terms of bibliographic guidelines (see Figure 4) and a bibliographic collection form (see Figure 5) would seem to be essential. These are needed because of the wide variety of participants with varying degrees of understanding and background and because of data processing

Figure 1


Start
Define Scope of Material
B
Make Bibliographic Assignment
Technical Advisory Groups
State Agency Planning Interests
Other Sources of Planning Information
Statewide Bibliography of Planning Materials
Preliminary Subject Geographic Indexing
1
1
Keypunch Total Biblio Input
Separate Lists Produced for each Association of Governments
Subject Listing (Preliminary)
Geographic List (Preliminary)
Screen Subject/ Geographic Lists
A
Screened Bibliography
Complete Detailed Indexing Procedures
2

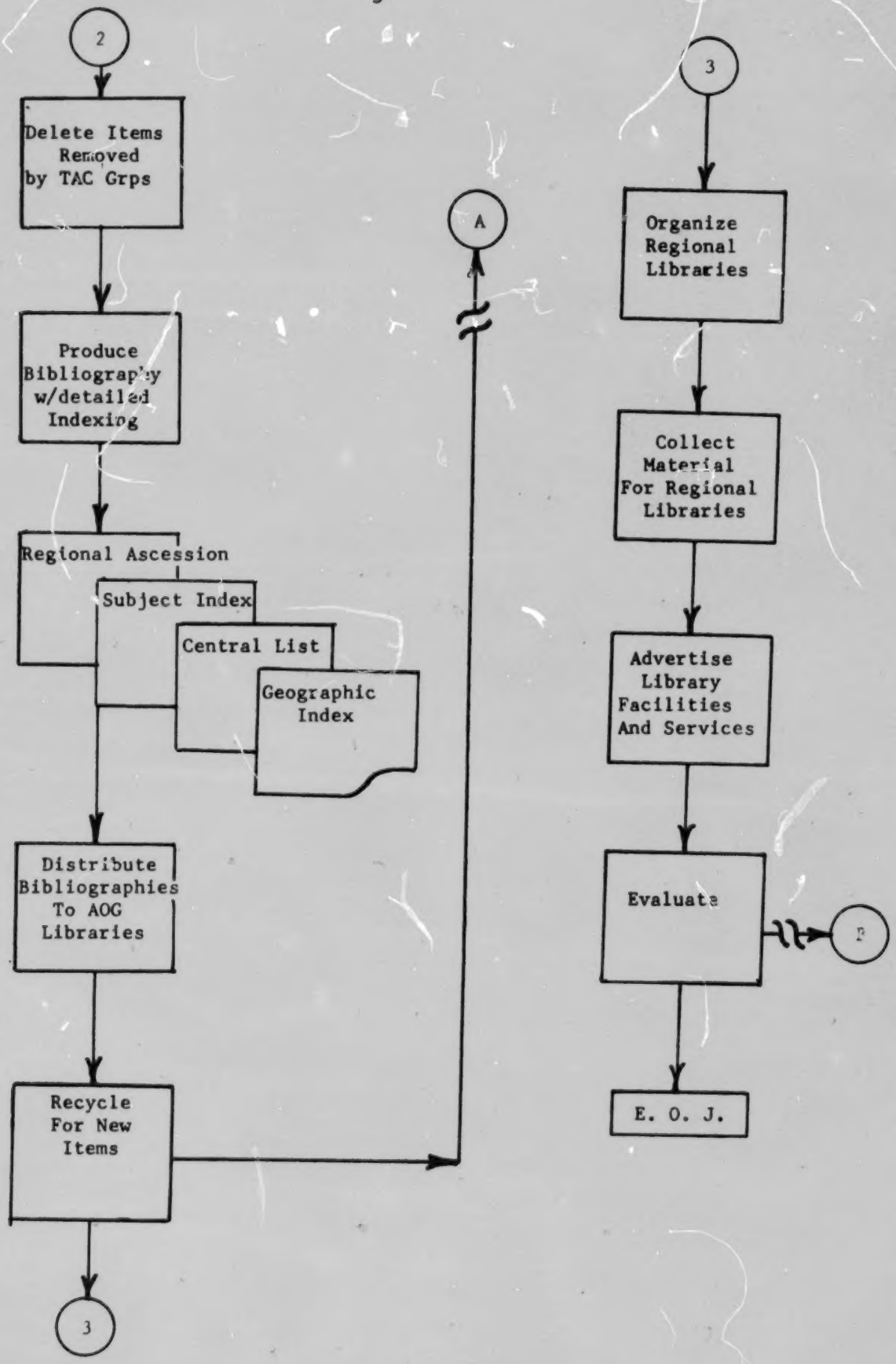

2
Delete Items Removed by TAC Grps
Produce Bibliography w/detailed Indexing
Regional Ascession
Subject Index
Central List
Geographic Index
Distribute Bibliographies To AOG Libraries
Recycle For New Items
3
A
3
Organize Regional Libraries
Collect Material For Regional Libraries
Advertise Library Facilities And Services
Evaluate
E. O. J.

Figure 2

Plan of Work for Establishing
The Natural Resources and Land Use Information System

	WHAT	WHO
1.	Agree on the scope and type of data to be collected.	Technical Committee in cooperation with the Professionals, Land Use Committee and the AOG
1.1	Compile a composite listing of categories of information to be included. (see list)	Project Director
1.2	Determine bibliographic guidelines for data collection (see guidelines).	Project Director, Data Control Center Staff
1.3	Develop form for bibliographic data collection. (see form)	Project Director and Data Control Center Staff
1.4	Assign the compilation of bibliographic to planners and agencies.	Chairman, Technical Committee
1.5	Compile bibliographies	Technical Committee plus assisting professionals (e.g. other Tech. Team)
1.6	Make continuous bibliographic input	Same as 1.5
2.	Agree on a regular reviewing/ screening procedure (see screening guidelines)	Project Director Technical Committee
2.1	Screen bibliographic input to the system on a monthly basis and new input to the controlled vocabulary.	Technical Committee Project Director
2.2	Send bibliographic collection forms to the project director for system input.	Technical Committee
2.3	Make entry verification and send to keypunching.	Project Director and Data Control Center
2.4	Batch information and update bibliography	Data Control Center

2.5	Implement indexing procedures with controlled vocabulary. (see procedures)	Project Director and Data Control Center
2.6	Update Subject/Geographic listing.	Data Control and Computer Center Staff
2.7	Distribute updated bibliographies to the multi-county and other agencies as directed.	Project Director
2.8	Obtain copies of items for regional libraries by purchase, microfilming, etc. as directed.	Technical Committee and Project Director
3.0	Organize regional libraries	AOG, Technical Committee and Project Director
3.1	Agree on library operating policies and procedures. (See policy/procedures)	Same as 3.0
3.2	Train staff who will assist with library operation.	Project Director and Data Control Center Staff
3.3	Order and procure necessary library equipment	Project Director and AOG Technical Committee
3.4	Establish a bibliographic inquiry procedure for utilizing other research facilities within the state (see Bibliographic Search Form)	Project Director
4.0	Establish a regular (at least annual) program for evaluating utilization and effectiveness of the library and information system with its potential users.	Project Director and Technical Committee
5.0	Develop an effective instructional/ and public relations program for advertising the regional library and its resources.	Project Director and AOG with Technical Committee and others as needed

Figure 3

Types of Information To Be Included in The
Natural Resources and Land Use Planning Information System

1. In process planning and inventory efforts
2. River Basin Studies
3. Groundwater Studies
4. Streamflow Reports
5. Hydrology Studies
6. Watershed Studies
7. State Water Plan
8. Water Quality and Pollution Studies
9. Snow Surveys
10. Climatological Reports
11. Air Pollution Studies
12. Irrigation Company Water Development Plans
13. Drainage District Development Plans
14. Annual Irrigation Company Operation Reports
15. Soil and Water Conservation District Plans
16. Soil Surveys (completed and in process)
17. Sewage and Water Masterplans, reports, etc.
18. Solid Waste Disposal Plans and Site Surveys
19. Flood Plain Insurance Studies, Reports, etc.
20. Land Ownership Reports (BLM, etc.)
21. Land Utilization Surveys
22. Geological Surveys and Reports
23. Mineralogical Studies

Figure 3 (Continued)

24. Range Site and Condition Surveys
25. Vegetative Surveys
26. Inventories and Land Use Plans for Federally Managed Lands
27. Timber Surveys
28. Recreation Site Surveys
29. Recreation Use Studies
30. County Recreation Plans
31. Crop Reports
32. Evaluations for Preservation of Prime Agricultural Lands
33. Archaeological Surveys and Sites
34. Historic Site Inventories
35. Visual (scenic) Assessments and Reports
36. Environmental Assessments and Impact Statements
37. National and State Recreational Plans and Inventories
38. Fish and Wildlife Inventories, Including Habitat and Population Reports
39. Demographic Studies and Projections
40. Sociological and Cultural Reports and Studies
41. Economic Analysis Studies
42. Transportation Studies and Plans
43. Subdivision Ordinances
44. Zoning Regulation
45. Building Codes, Insurance Maps, etc.
46. Housing and Subdivision Studies
47. Citizen Goal and Policy Statements
48. Maps
    - base inventory 1" = 1 mile
    - ERTS 1:25,000
    - Aerial Mosaics 1:24,000
    - Aerial Mosaics 8" = 1 mile

Figure 3 (Continued)

49. Masterplans, County, District, City, etc.

50. Tax Classification Data

51. Supporting legal and Legislative Data Pertinent to Land Use Planning

52. Water Rights and Adjudication Reports

53. Hazard Studies

Figure 4

Bibliographic Guidelines For
Compilation of the Land Use Bibliography

1. Take basic information as it appears on the title page of the book. (Usually the first page)

2. Be sure to cite personal and agency/or departmental authors. Keep in mind that an author is the person or agency primarily responsible for the content of the work.

3. If information does not appear on the title page, simply write "not available" on the bibliographic collection form. If the date is missing, make an estimate as follows: (1970?)

4. If the work is lacking page numbers write "unpaged" on the form.

5. When identifying location, be precise enough that you can find the item a month later from your description of location. Try to include the person or agency having immediate jurisdiction over the work in your location citation, as well as file references when appropriate.

6. If the item is part of a series like U.S. Geological Survey Bulletin try to cite the series number following the title and the name of the series.

Figure 5

BIBLIOGRAPHIC COLLECTION
FORM

(1) Author(s) (Personnel)	(2) Author(s) (Agency and Department)
(3) Title (As it appears on the Title Page)	
(3) Title (continued)	
(4) Place of Publication	(5) Publisher
(6) Date of Publication	(7) Number of Pages
(8) Scale (If item is a Map)	(9) Location of item

requirements which require some standardization. All agencies inputing information into the system will be asked to use the guidelines and bibliographic collection forms.

Data collection or the initial effort to compile the bibliography is to be accomplished as follows:

1. Under the direction of the executive director of the multi-county association of governments a technical advisory group consisting of representatives from all agencies of state and federal government in the area will be organized.

2. After an introduction to the Natural Resources and Land Use Information System Concept each agency will assemble data housed in their respective offices that is pertinent to the planning process in the multi-county area.

3. Data will be collected on a bibliographic form that structures information input so all agencies are providing bibliographic citations in a standardized manner.

4. The bibliographic forms will be given to the executive director who will then turn them over to the Library representative for preliminary review and bibliographic compilation.

Prior to keypunching the data submitted on the collection forms must be verified and "cleaned up" before placing the information in the initial screening bibliography.

Screening and Selection Procedures

The basic responsibility for determining what specific documents are to be included in the bibliography rests with the technical advisory group in each multi-county area. The goal of the system is a comprehendable, usable bibliography, not necessarily a comprehensive bibliography. This should in no way exclude pertinent historic studies which may contain basic data that is either unique or valuable for establishing trends. Material that is not applicable to the planning process or that is grossly

inaccurate should be considered for exclusion. Additional technical guidelines appear in Figure 6.

As the technical groups determine what items to add to or retain in the bibliography the process in Figure 7 will take place.

Ideally the reviewing and selection procedure should take place as a regular agenda item with each meeting. Otherwise, as new studies are completed and initiated, members of the group may neglect to add these new items to the bibliography.

After an initial bibliography has been compiled in a multi-county area, some determinations must be made to indicate which items need to be housed in the regional library and which items are of sufficient importance to be retained in the total bibliography.

A master listing of all identified materials will be submitted to the technical advisory group by the Merrill Library acting as the Data Control Center. This listing will be a broad arrangement by at least the basic subject categories of documentation identified in the scope document. The Technical Advisory Group will then proceed to:

1. Screen out useless or irrelevent items cited in the bibliography.
2. Identify items to be included in the regional library.
3. Identify items which must be microfilmed, copied, or acquired through other means for the regional library collection.

In addition to determining which items will be placed in the regional bibliography, the technical group also carries the responsibility of making recommendations as to which items should be physically housed in the regional library. This determination will be based upon many of the screening guidelines in Figure 6 plus the actual need anticipated for the material.

Figure 6

Guidelines for Screening and Selection of Material

1. Is the item thorough in its coverage?

2. Is the work reliable and authoritative?

3. Is the information presented clearly and accurately?

4. Is the data sufficiently current to be of value for planning purposes?

5. Is the work basically unique or does it repeat information already available?

6. If the data is readily available from other sources does the work help to bring data together or is the data interpretation of singular value?

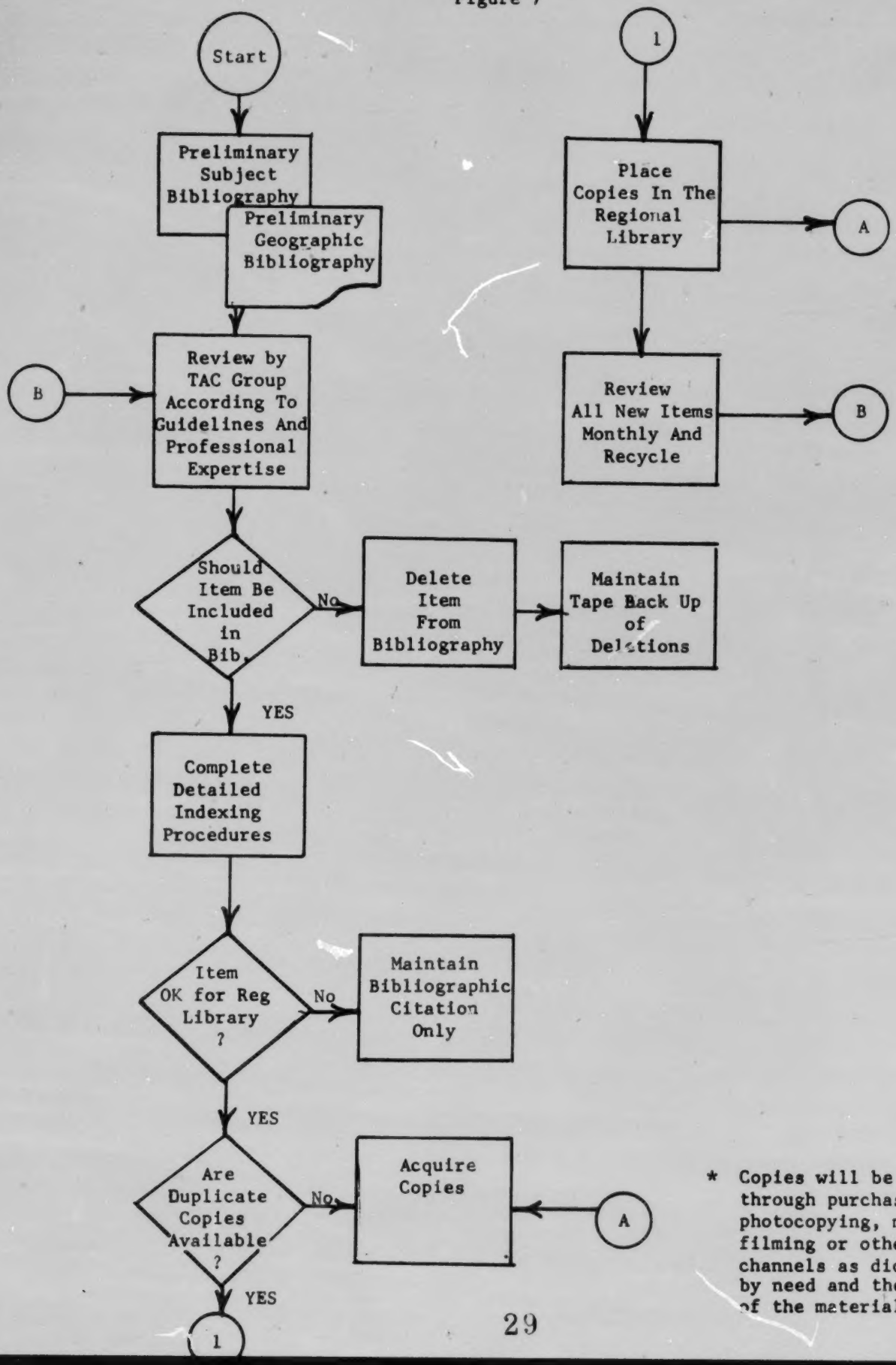
7. Is the work arranged for relatively easy use? (e.g. table of contents, index, etc.)

8. Can the work be used alone or are other materials needed to promote use?

9. Is the basic content of the work pertinent to usual planning concerns?

Answers to most of the above questions should be yes, before an item is finally placed in the regional library or in the bibliography.

Figure 7



* Copies will be acquired through purchase, photocopying, micro-filming or other channels as dictated by need and the nature of the material

Indexing Guidelines and the Controlled Vocabulary

Inherent in the notion of indexing is user accessability. In order to facilitate retrieval of information from the system, a specialized controlled vocabulary of natural resources and planning terms common to professionals and citizens will be developed. This vocabulary or thesaurus will be a key factor in locating information by subject and geographic area. "An information retrieval thesaurus is a term association list structured to enable indexers and subject analysts to describe the subject information of a document to a desired level of specificity at input, and to permit searchers to describe in mutually precise terms the information required at output. A thesaurus, therefore, serves as an authority list and as a device to bring into coincidence the language of documents and the language of questions."

The individual components of the thesaurus, called descriptors, are single terms or phrases that are technically meaningful for indexing purposes. Two basic types of terms will be listed in the thesaurus, descriptors or authoritative terms and synonyms or near synonyms. Five basic notions will be used:

1. USE this directs the indexer or searcher from a synonym or near synonym to the preferred term.

2. UF or used for tells the user that the concept is included within the descriptor, for example:
   LAND SUBDIVISION (Descriptor)
   UF LAND DIVISION

3. NT or narrower term indicates a hierarchial relationship between a descriptor in the same category but of greater specificity, for example:
   GEOGRAPHY (Descriptor)
   NT PHYSICAL GEOGRAPHY

4. BT or broader term is the reciprocal of the narrower term and indicates a hierarchial relationship, for example:
   LAND SURVEYING (Descriptor)
   BT SURVEYING

5. RT or related term helps to clarify scope of the main descriptor and serves to help the user select other terms under which desired information may be indexed or located, for example:

LAND	SURVEYING
RT	BOUNDARIES
	EASEMENTS
	LAND SUBDIVISION
	LAND TITLES
	LAND ZONING
	PHOTOGRAMMETRY

In addition to the subject/descriptor approach it will be possible to look at groups of information as they pertain to particular geographic areas. Accordingly a geographic term listing will be included as section two of the thesaurus. Geographic or identifier indexing will be available on the following levels:

1. Utah - general documents pertinent to all areas of the state.

2. Multi-county - documents pertinent to one or more established multi-county planning districts.

3. County - Documents having information pertinent to one or more counties.

4. Principal municipalities in rural areas and all cities of 5,000 or more population by name of city.

5. Watershed - by name as identified on the Conservation Needs Watershed Map, February 1970.

6. Rivers or creeks by name

7. Important physiographic features (e.g., Uintah Mountain Range, etc.)

Basic descriptor indexing will follow the philosophy of assigning the most specific subjects possible within the limits of the system. Documents will be assigned multiple subject and geographic headings based upon:

1. The scope of the documents.

2. The need for multiple subject or geographic assignments to describe the content and focus of the work.

Much of the initial detailed indexing will be handled by data control center staff working with the actual documents cited.

The following is an example of what might be done with a typical document in terms of subject/geographic indexing in terms of preliminary and later detailed indexing.

Utah Division of Water Resources. Office of Saline Water. Great Salt Lake - Desalting - Power - Industrial Complex. Salt Lake City, Utah. 1973. 59 p. plus appendices.

I. Preliminary Indexing

A. Descriptor	B. Geographic
Industrial Development	Great Salt Lake

II. Detailed Indexing

A. Descriptors	B. Geographic
Industrial Development	Great Salt Lake
Desalination	Wasatch Front AOG
	Mountainlands AOG
	Bear River AOG
	Davis County
	Weber County
	Salt Lake County

Preliminary indexing guidelines are:

1. Based upon the title and the initial scope document assign a single broad but descriptive subject entry. Avoid multiple terms, etc.

2. Based upon the scope of the work as implied in the title assign the geographic identifier which most closely coincides with the total scope of the document.

After keypunching the items will be compiled into a subject geographic screening bibliography arranged alphabetically by subject and alphabetically by geographic area in two separate listings. Listings will be generated for each multi-county area and compiled into a total state listing as a program option.

Bibliography Creation Distribution and Updating

Bibliographies of materials throughout the state will be distributed to each multi-county AOG and selected offices of state and federal government plus key planning concerns such as the Utah Institute of Planners.

The bibliography with detailed subject and geographic indexing will become a union or location list of planning documentation within the state. Locations will follow each bibliographic entry in numeric code form with a master key to the codes provided as output with each new updating of the system. In this manner each specialized location can be uniquely identified with comparative case.

As agencies receive or generate new material, they will record the items on bibliographic collection forms and they will be processed through the system and added to the existing bibliography. Each of the seven multi-county association of governments will receive a monthly update of information it has placed in the system. The data control center and selected state and federal agencies will regularly receive statewide updatings.

A typical bibliographic entry might appear as follows:

State Control Number	Regional Ascession Number
0-001-754	2-000551

Descriptor Display	-	Industrial Development, desalination
Geographic Display	-	Bear River AOG, Mountainlands AOG, Wasatch Front AOG, Great Salt Lake, Davis Co., Weber Co., Salt Lake Co.,
Bib. Entry	-	Utah Division of Water Resources. Office of Saline Water. Great Salt Lake - Desalting - Power - Industrial Complex. Salt Lake City, Utah. 1973. 59 p. Appendix.
Location (s)	-	001, 005, 007

A typical subject index entry would include only the descriptor, document title and state control number, for example:

Descriptor - INDUSTRIAL DEVELOPMENT

0-001754 Great Salt Lake - Desalting - Power - Industrial Complex

Arrangement of material in the regional libraries will be based upon the regional ascession number, retrieval from the subject or geographic index will be based upon the state control number. Capability will exist for producing author, subject/geographic listings, ascession number, and state control number lists.

Regional Library Concept

Basic to the information system is the concept that planning information for a particular area should be available within the area to which the information pertains. This would seem to be almost vital if a wide a variety of users, other than trained professionals, actually are able to use the information system.

Each of the seven multi-county regions will have its own library facility located within the offices of the executive director of the association or at such other locations as may be deemed appropriate by local officials. Library facilities will need to provide at least 48 linear feet of shelving plus some specialized storage for selected maps and microfilms. Total space required for reading and the total library facility will not exceed 120 to 200 square feet in most areas. Reading space for a team of at least 6 to 8 people simultaneously using the facility should be available. Lighting should be adequate to facilitate comfortable reading. Copying facilities should be available in all regional libraries. Ideally two microfilm readers should be in each library, one of which has copying capabilities.

Material in the regional libraries will be arranged according to the regional ascession number, for example:

	Region Number	Ascession Number
Bear River AOG	1 - 000	576
Wasatch Front	2 - 000	754
Mountainlands AOG	3 - 000	452
6 County AOG	4 - 000	259
5 County AOG	5 - 000	175
Uintah Basin AOG	6 - 000	391
Southeastern AOG	7 - 000	546

Thus the first digit of the regional ascession number identifies the region holding the material and the remaining six digits uniquely identify the item in the regional library. Of course the master key to what is housed in each region will be the thesaurus and bibliography previously discussed.

Rather than using a card catalog system, a computer print-out of the library's holding with the modified ascession numbers, will serve as a shelf list. Periodic updates will be added to the master shelf list to keep it current. Such a system requires a minimum of maintenance and little special training in its administration and use.

Circulating items will be checked out in normal library fashion. The user will fill out a form giving bibliographic data as well as user-related information. The material will be let out for a specific period of time with an option for renewal, provided other requests for the material have not been received. It will be the user's responsibility to return the material on time; no provision has been made for assessing overdue fines. Circulation policy should be based on good faith of the user.

An interlibrary loan system will be established. Besides providing copies of microfilms from its masters, the data control center will secure material from the appropriate library for users. Individual libraries may also request copies from each other. Such requests will be handled either by phone or mail. The requested material will be circulated in the same manner as material checked out directly from the library. Upon receipt of the material, the requesting library will circulate it, and the user will return it to that library, which will in turn send it back to the original depository. Such a system will facilitate statewide use of materials.

At least one staff member in each region should be responsible for maintenance and service of the library. It will be the responsibility of the data control center to provide organizational guidelines, assist in organization and provide consultative service in equipment selection, site evaluation and standardization of operating procedures.

The data control center will train those staff members in each multi-county region who will assist with the library operation. Qualified library personnel will be sent to each library to conduct sessions in methods and procedures. The system will be kept as simple as possible. Instruction should require a little time and not interfere with other duties of staff members. The sessions will consist of classes in indexing procedures, utilization of the thesaurus and general library procedures.

The data control center will monitor each library program, providing refresher courses and instruction in new procedures as needed.

Requests for material held by an agency not a part of the bibliographic system will be funneled to the data control center. Before proceeding further the center will determine if the request is sufficient.

documented to permit a search. A discussion with the requestor will determine the exact nature and scope of the information required and inform the requestor of the possibilities of obtaining the material. With the consent of the requestor, the center will formulate a workable request and contact those agencies most likely holding the information. Having located the sources, the center will arrange for the requestor to either obtain the information through the center or directly from the agency. If the material is pertinent to the land use planning bibliography, the center will make an effort to secure a copy for the respective regional library or for the center itself and input it into the system.

Advertising and Public Relations

The data control center will develop a mediated program to explain the scope, purpose and use of the Natural Resources and Land Use Planning Information System. This presentation will be available in each regional library and should be utilized at the library facility and with meetings of county and city commissions, planning and zoning boards and placed before the public whenever possible.

IMPLEMENTATION AND EXPERIENCE

Objectives

Of the original eleven study objectives most were accomplished to varying degrees. Very early in the implementation of the project, emphasis shifted so as to place a relatively high priority on the following objectives:

1. To compile a bibliography of the pertinent planning materials available for each multi-county area.

2. To develop a functional process for keeping the bibliography up to date.

3. To develop a rapid process for indexing and retrieval of all material cited in the system.

4. To develop a capability for retrieving and displaying information on a demand basis for special purpose studies.

Emphasis was primarily focused on (1) What information exists? (2) How can it most effectively be indexed for retrieval? (3) Where is the information located and (4) Who can have access to the information and through what means?

Constraints

Of the eight original constraints anticipated in the study, virtually all of them showed up at one time or another in the development of the total process. Probably the most serious problems in terms of overall systems effectiveness were:

(1) Failure in some areas of the state of agencies of federal and state government to enter new information as soon as it became available.

(2) A basic conflict between agency priorities and information system requirements in constructing the retrospective information base.

(3) Failure of key agency personnel to consistently attend organizational meeting which made statewide communication difficult and also hampered the updating and screening process.

In viewing the overall experience, however, all agencies were most cooperative and supportive. At no time did any cooperating agency thwart the purposes of the project, but agencies seemed to move at different speeds in handling required tasks. This proved to be a major problem from time to time and suggests a need for more effective organization and communication in order to meet necessary deadlines.

Organization

The overall project operated within the framework of the multi-county associations of governments in Utah. Figure Eight is an outline map of the state showing the boundaries of the various multi-county associations of government. Figure Nine illustrates the basic organization of the multi-county.

The multi-county association of governments is charged with the responsibility of coordinating land use planning activities for geographic areas of the state with similar socio-economic characteristics and land use patterns or concerns. The multi-county is presently linked to state government through the office of community affairs and through the governors advisory council, where the executive directors of each multi-county district are ex-officio members.

The counties within each district are represented by the county commissioners on the governing board of the multi-county organization,

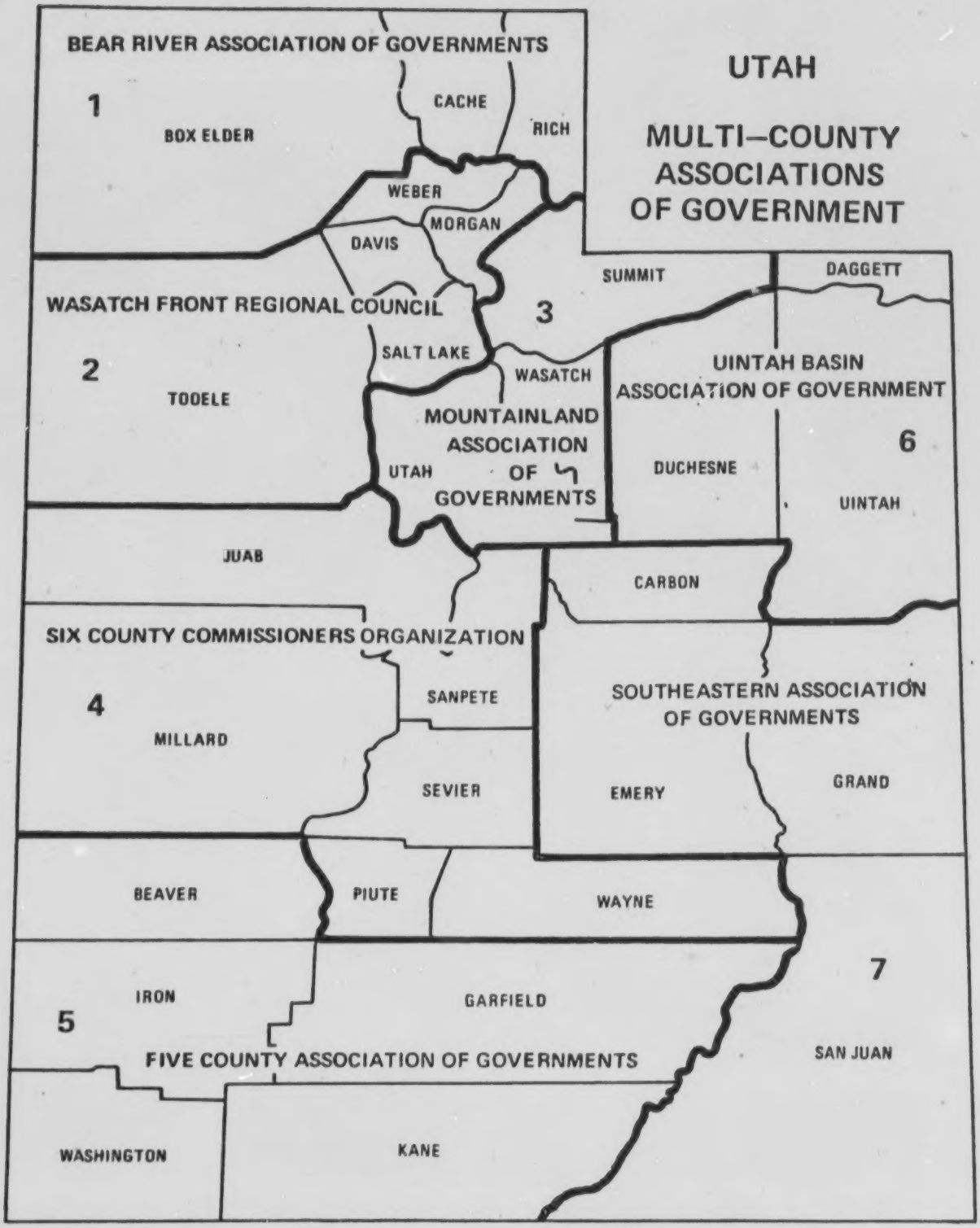


Figure 8: Outline Map of Utah Illustrating Multicounty Boundaries

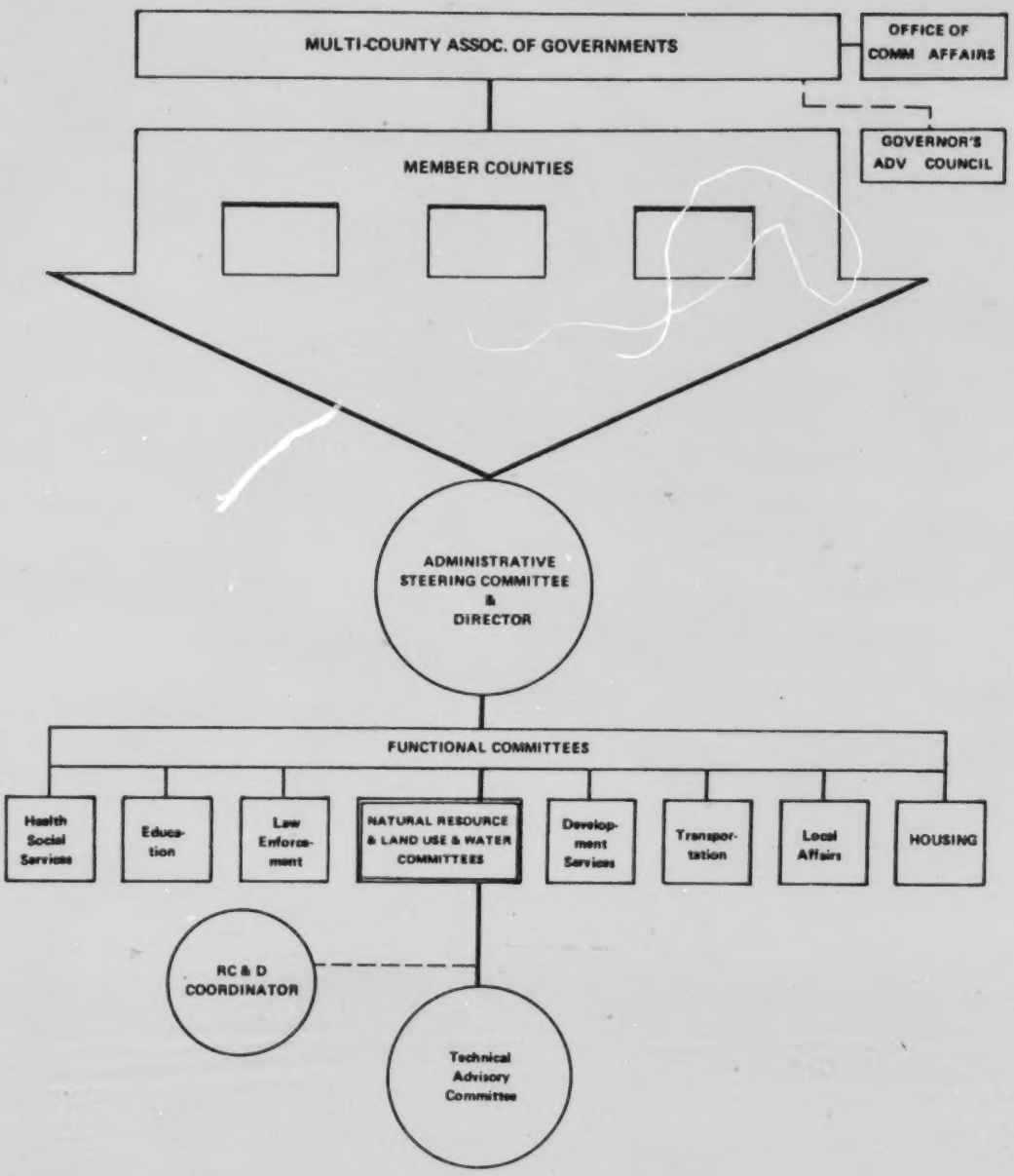


Figure 9: Multicounty Organizational Chart - General Example

thereby effecting overall coordination. Conceptually, the multi-county group should be able to assist planning efforts on a community level, relate these efforts to other on-going projects, and bring to bear the necessary technical assistance needed to formulate plans and make resource management decisions.

In order to carry out its responsibilities the multi-county association of governments must have an adequate technical staff as well as other technical and resource assistance willing to respond to multi-county information and planning requirements.

In this framework technical advisory groups were organized in varying ways in each multi-county association. These groups served as the basic information identification, evaluation and screening groups throughout the state. Group composition varied from area to area, however, the USDA Rural Development committees formed the nucleaus of the group throughout the state.

While the Rural Development Committees formed the nucleus of the Technical Advisory Committee (TAC) in Utah, it is apparent that an effective TAC needs to be multi-disciplinary and extensive in its range of members to effectively assemble and evaluate data and technology for the planning process. Figure Ten illustrates the relationships of the technical advisory committees to county-district land use planning. Appendix F lists the composition of groups in the Bear River Association of Governments and with the Wasatch Front Regional Council.

In terms of administrative theory, the TAC will undoubtedly seem too large; however, the complexities associated with planning require input

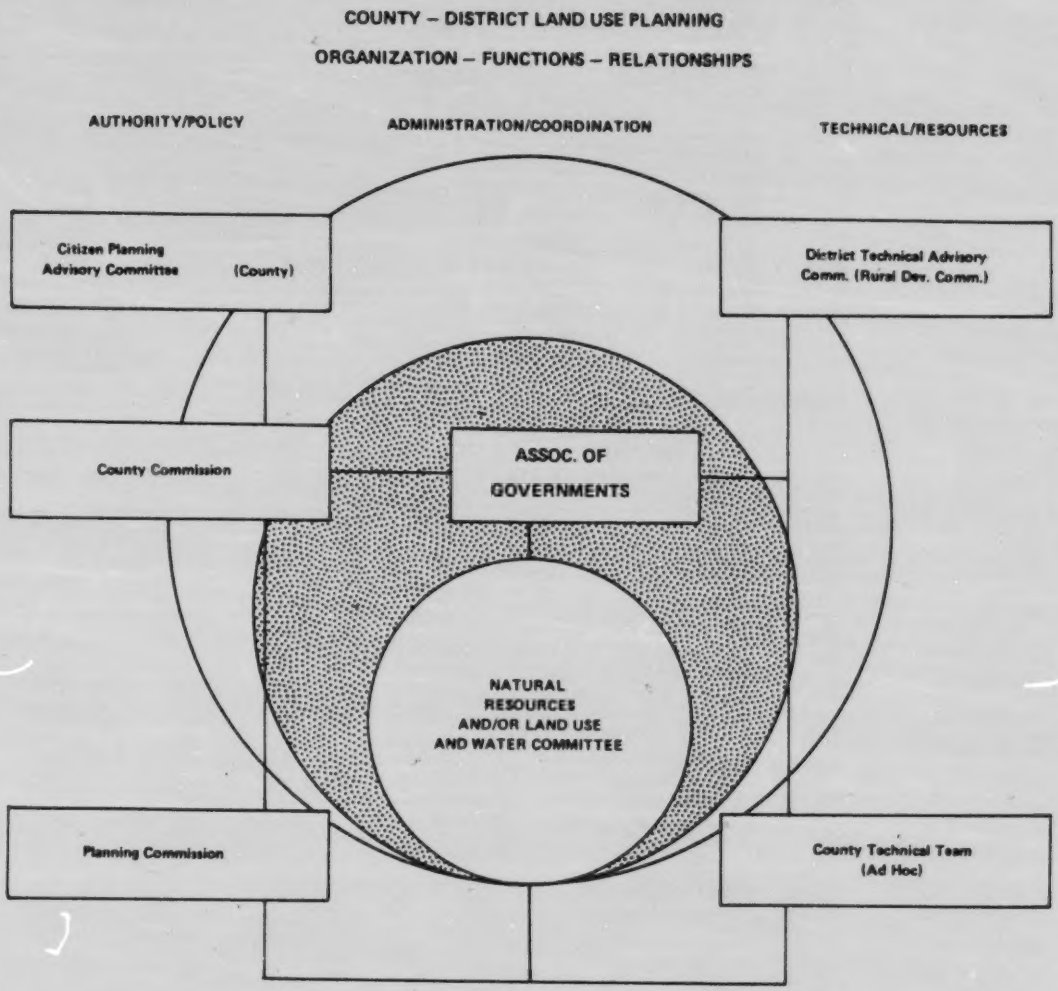


Figure 10: County - District Land Use Planning Organization - Functions - Relationships

from a broad spectrum of resource professionals. The properly functioning TAC:

(1) Meets regularly, preferably monthly.

(2) Clearly communicates TAC actions and recommendations to the lay, Natural Resources, or Land Use Committees of the multi-county organization.

(3) Serves as a clearly house for agency concerns as well as government planning efforts.

(4) Assists in identifying new reports and studies for the Natural Resources and Land Use Information System and reviews all pertinent in-progress studies conducted by each agency represented on the TAC.

(5) Automatically detects duplication of effort by various agencies.

The effectiveness of the TAC groups varied considerably. Each group seemed most capable of handling the basic responsibilities associated with developing the information system. A good deal of the effectiveness of the TAC seemed to be dependent upon the organizational ability of the TAC chairman and the relative importance placed upon the group by the executive director of the multi-county and its steering board. The most effective thing the TAC's did in terms of the information system was resource identification. The basic charge of responsibilities to two of the TAC groups by local government are listed in Appendix E. Screening, the identification of projects in progress, etc. are all strong possibilities, but not enough experience was gained with these processes to warrant a comment on TAC effectiveness. The TAC seems to have great promise in identifying duplications of effort, identification of anticipated projects as well as those completed and in progress and perhaps of greatest value is the ability of the TAC to interpret technical studies for decisions by

elected officials. Much of the credit for compilation of the land use information system must be given to the various TAC groups and Rural Development Committees throughout the state.

On an area basis information was collected as follows:

1. Bear River Association of Governments - Organized TAC

2. Wasatch Front Regional Council - Library Advisory Committee

3. Mountainlands Association of Governments - Rural Development Committee

4. Uintah Basin Association of Governments - Organized TAC

5. Southeastern Association of Governments - Rural Development Committee

6. 6-County Association of Governments - Rural Development Committee

7. 5-County Association of Governments - Organized TAC

In terms of information system effectiveness the organized TAC groups did an excellent job. However, since the agency representatives appearing at a given TAC meeting often varied from time to time, communication was complicated. While the advisory group with the Wasatch Front Regional Council basically was the key group in terms of establishing guidelines that could be used by the rest of the state, it was only fair as an information gathering group. Attendance at Advisory Committee meetings was often spotty. One significant difference between the rural areas of the state and the Wasatch Front Regional Council was the acceptance of the TAC concept. TAC was much easier to organize in the rural areas. It never was implemented with the Wasatch Front though it may yet be. The usual problems cited were time, "we don't need another meeting," and

possibly a different attitude toward the need to know what others are doing in the area. Many other communication links already exist on the Wasatch Front, though none are as far reaching as a fully organized TAC. It would appear that the greater the density and complexity of the area, the probability of establishing a usable and workable communications network like TAC is diminished accordingly. Because of the planning sophistication of most of the member counties of the Wasatch Front, the area might be more effectively served by county technical advisory groups.

Bibliographic Collection

One might assume a high degree of duplication, since the seven multi-counties worked independently at gathering information about their respective areas. This, however, did not appear to be a serious problem. Of the thousands of entries placed in the system the overall duplication of entries was less than 12%. For the most part, this duplication helped to establish additional locations for published material.

The original concept of having agencies submit entries on the bibliographic collection forms works reasonably well for current materials. Most agencies requested assistance at developing an overall inventory of their holdings. At the request of the multi-county associations, library staff went to the agencies and worked with agency personnel to complete an accurate listing of that agencies holdings of published and unpublished resource information. This pattern was most useful in terms of establishing good public relations with the cooperating agencies and to create an initial base of titles of sufficient depth and scope to attract agency interest and support.

It should be noted that the actual procedure for updating the system is dependent upon agency cooperation with the multi-county through the technical advisory committees. This procedure is illustrated in Figure Eleven. Figure Twelve depicts the relationship of the Merrill Library to each region as an information network.

The updating process is functioning most effectively with the Bear River Association of Governments, the Uintah Basin Association of Governments, and the Southeastern Association of Governments. Other AOG's are functioning more slowly, some because they have had lesser degree of involvement with the overall process.

The initial focus of the system was on natural resource information. However through experience with the seven multi-counties and especially with the Advisory Committee on the Wasatch Front Regional Council it soon became apparent that for the system to be effective it needed to contain references to the entire spectrum of resource management, especially economic, sociological, housing and transportation studies. Figure Thirteen represents this expansion of concept.

Ultimately, all multi-counties should be operating effectively given follow up and additional training and experience with the system.

Bibliographic Collection Statistics

As of June 1, 1975, the tape master file had 7,383 unique references to published and unpublished materials and a backlog of about 1,500 items in various stages of processing for a total of 8,883 items. Of this total, about 10% or about 900 documents are general to the entire state. Hence, these documents appear in the listing for each association of governments.

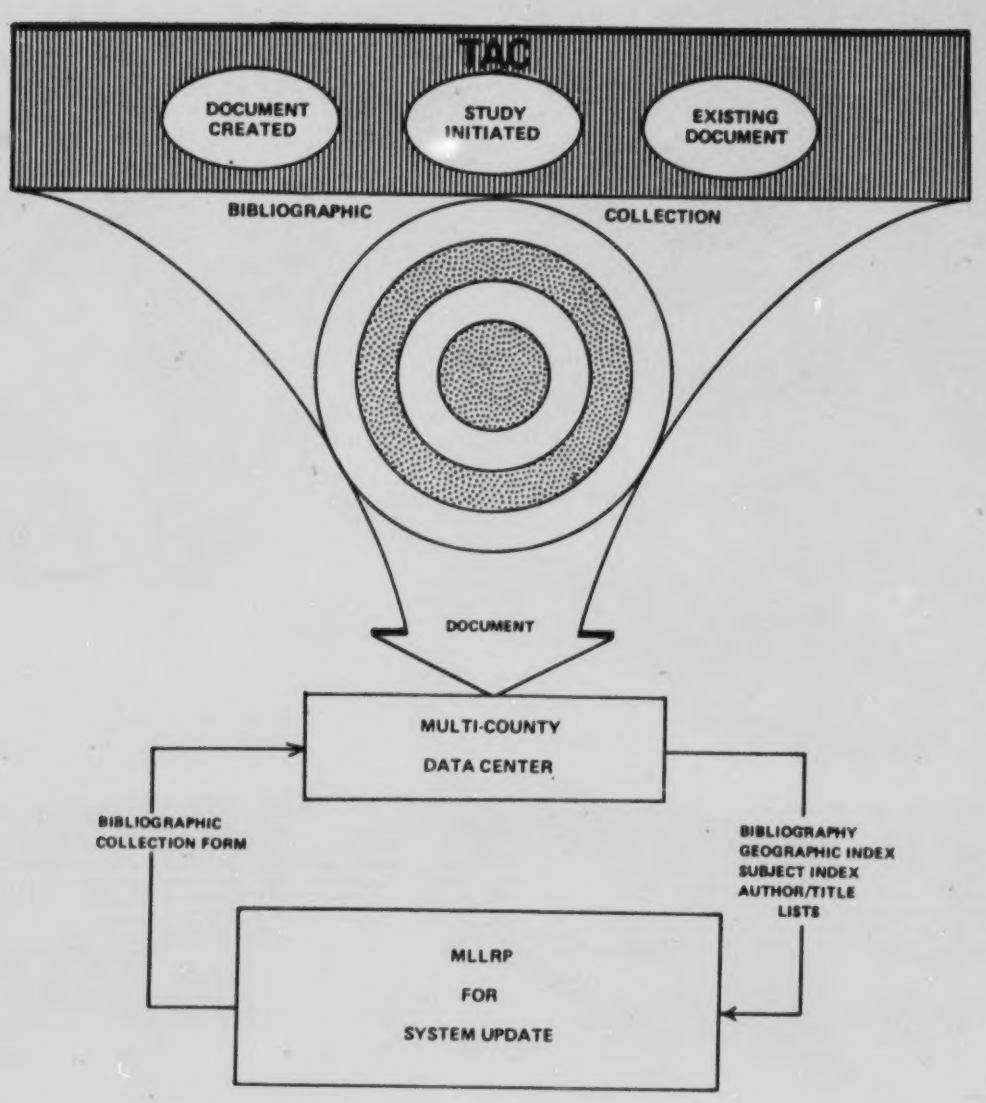


Figure 11: Information System Updating Process

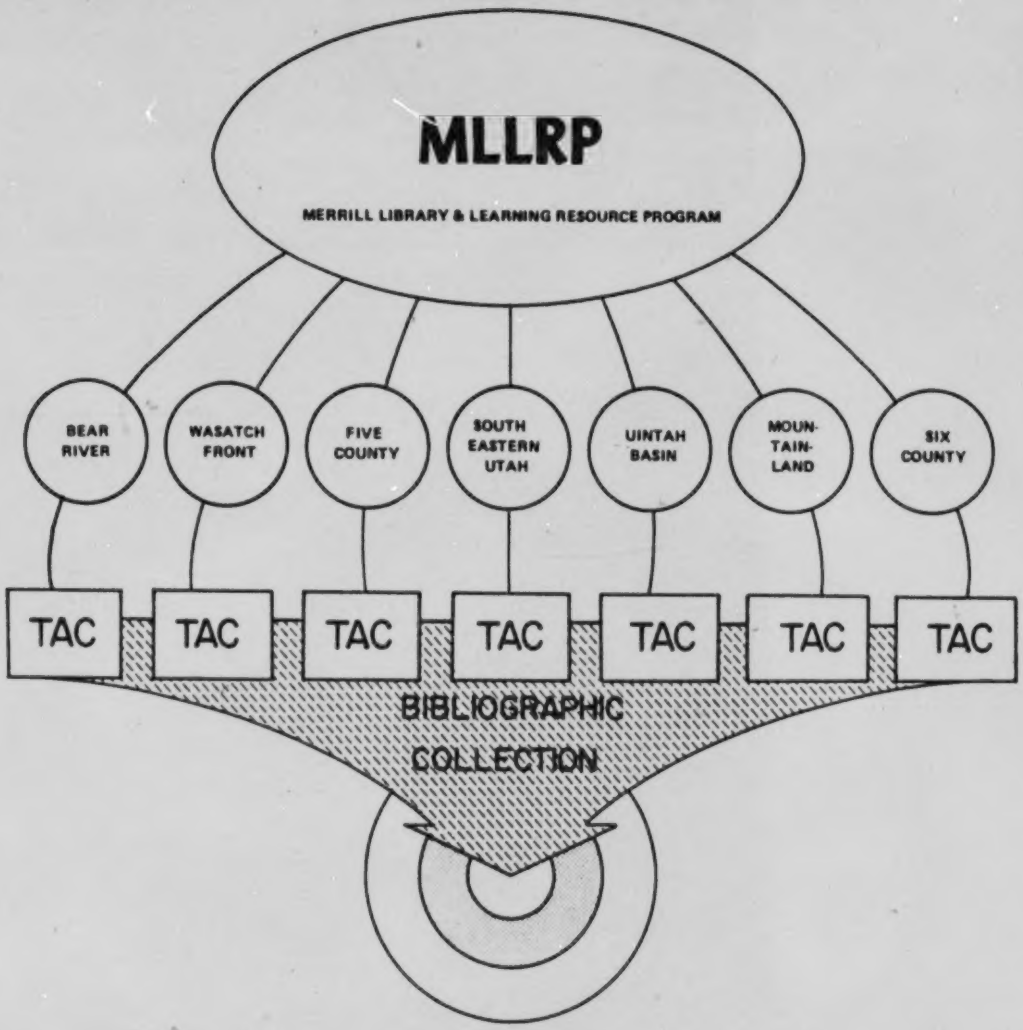


Figure 12: Land Use Information Network Diagram

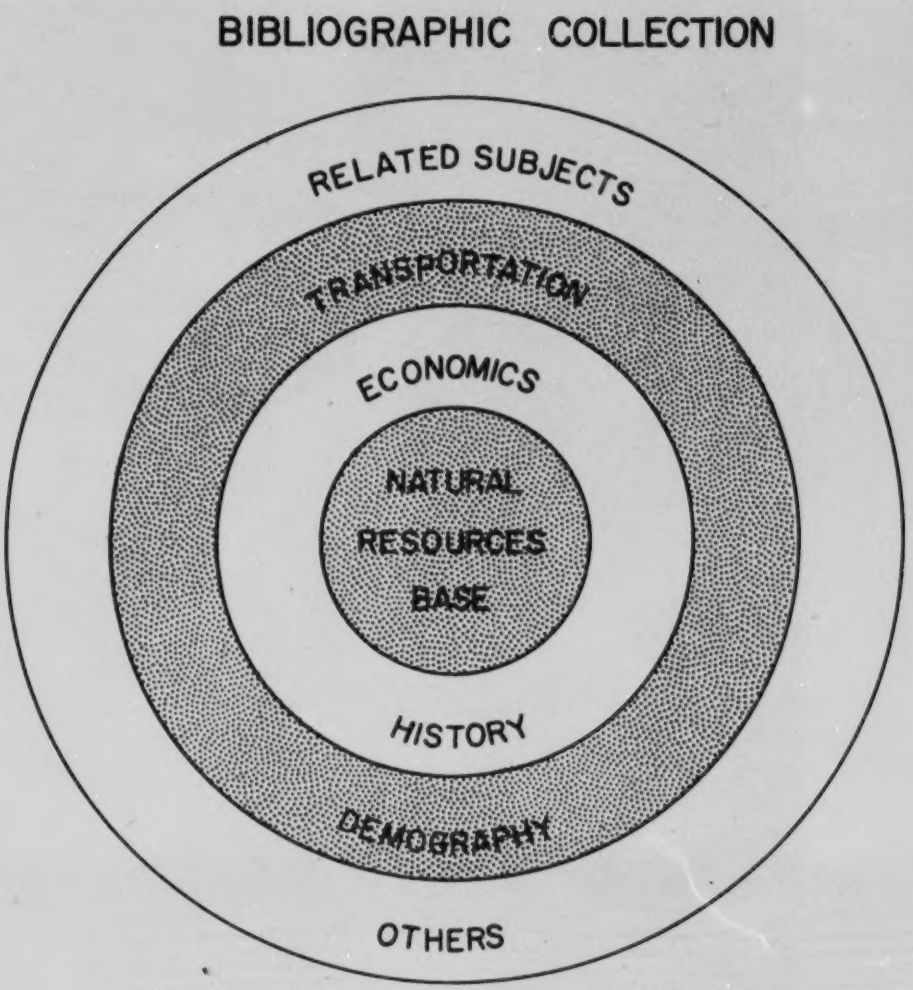


Figure 13: Bibliographic Collection Diagram

Figure Fourteen is a statistical summary of the number of titles listed in each regional bibliography. The system is designed so a given item can be listed in any or all regions. Hence the cumulation of the numbers in Figure Fourteen is greater than the 7,383 items on the tape file. In fact the cumulation amounts to 18,924 entries in the regional listings. This figure less the 900 general items per region, still yields over 12,000 entries. This would imply that a given document will almost always have something to say concerning another region since it yields a ratio of 1 to 1.8.

Even though participation of the respective multi-counties was by no means equal in intensity, the inventory phases of project tended to balance out and provide bibliographic coverage for all areas. The state and regional offices of the various agencies in Salt Lake City were of great help in this regard.

The Wasatch Front Regional Council is by far the most complex of the seven planning districts and coincidentally has a bibliography about 40% larger than any other district in the state. Based upon experience with this project and other activities with the state archivist it would appear that about 1,000 documents a year are published dealing with Utah. Of this figure about 25% or 250 publications a year are added to the growing volume of literature pertinent to resource management in Utah. This becomes relatively easy to accept when over 100 agencies participated in the study. This amounts to less than 2 1/2 publications per agency per year. The potential for duplication of effort is considerable since the vast majority of these publications have had very little effective access from a bibliographic point of view. Many have had a limited distribution as well.

Figure 14

Number of titles by region including publications general to all of Utah.

Name of AOG	No. of Pages in Printout	Estimated Number of Titles
Bear River	276 p.	2,480
Wasatch Front Regional Council	378 p.	3,398
Mountainland AOG	270 p.	2,429
6 County AOG	268 p.	2,403
5 County AOG	268 p.	2,419
Uintah Basin AOG	272 p.	2,444
Southeastern AOG	261 p.	2,351

Land Use and Resource Management Thesaurus

The thesaurus was designed to be a vocabulary for indexing and retrieving bibliographic material concerning any aspect of land use or resource planning. The scope of the vocabulary is interdisciplinary. Economics, geography, history, demography, and sociological terms are included as well as a vast number of scientific, technical and natural resource terms commonly used by resource development and resource planning agencies.

A thesaurus is a specialized vocabulary designed to assist users in gaining bibliographic access to a given body of information. A thesaurus reflects the language used in a given area to describe the literature of the discipline. Terminology changes over time and the sophistication of users varies, hence a good thesaurus should help bring the language of a user into coincidence with the language of an indexer or author. Until this coincidence occurs it is very difficult to efficiently retrieve information by subject.

Terms for inclusion in the thesaurus were taken from staff experience with the planning community in Utah and from a number of published thesauri that contained terms and term association listings pertinent to the overall scope and objectives of the project. Terms or descriptors used in the thesaurus were selected on the basis of their usefulness in indexing and retrieval but most especially upon their value as communicators to a diverse range of users.

The thesaurus proved to be an item of great utility but also an extremely time consuming and difficult item to construct. The final product included all non-geographic terms used in the system and thousands

of additional terms that are there purely as a guide to a serious researcher. Originally planned to be placed in machine readable form for rapid updating, existing funding and time rendered this impossible.

The final thesaurus was published in microfiche and still needs to be keypunched for maximum flexibility. The present edition contains approximately 11,000-12,000 terms with cross references. As such it is the only such listing in existence that brings together such a wide variety of resource management disciplines in a single listing. It would have been most helpful to have had the thesaurus a year ahead of the actual bibliographic collection process.

Indexing

Originally all documents were to be indexed using standard manual indexing procedures. This process added a time factor that was not tolerable for a system supposed to be as current as possible. Similarly no authority list was ready that had all subjects adequately used and cross referenced to meet the needs of the Utah planning community. The thesaurus now fills this void.

Inasmuch as the titles of most of the documents were long and sufficiently descriptive it was decided to use a derivative title indexing approach. Put very simply, the computer does the indexing directly from the title of the document. The final system configuration allowed for an author index, a title index, a subject index, a keyword index, a geographic index, and an agency index or location list. The following system description explains each of these components.

Computer System Description

Masterlist

The masterlist is the principal bibliography. It is arranged by state control or accession number. This number is automatically assigned by the computer to each record, and is used only once. The masterlisting is the source for full bibliographic information on a given document. All indexes are generated from data on the master. An example of the master with both format options is in Appendix A.

Author Index

The author index provides an alphabetic listing of all authors cited in the personal and corporate author fields. Items by a given author are listed alphabetically by title with references to the state control number so a user can look up the complete citation in the masterlisting. An example of this listing appears in Appendix A.

Title Index

This index lists all titles in the system alphabetically letter by letter. All words are considered in filing, including initial articles. The state control number is cited by each title to allow a user to refer to the master list. An example of this output is included in Appendix A.

Agency Index or Location List

The agency index groups all publications held physically by the agency. The project example in Appendix A lists items held by an agency. The present option lists items by state control number or by title. This listing is designed as a feedback mechanism to participating state agencies.

Subject Index

The subject index is a special purpose index that permits the creation of special indexing packages that might not ordinarily be included within the keyword indexing component of the system. The format is similar to the keyword index. No example of this output is included since it was not used extensively and is very similar to the format of the keyword index.

Key Word Index

The key word index is a title derivative index and serves as the basic subject index to documents in the system. If a particular title is not sufficiently descriptive, additional terms are added to describe the content of the item. Terms may be combined for clarity so that the words GREAT SALT LAKE for example are treated as one word instead of three. A key word index is useful in that it provides many points of access to information and in the language or syntax used by the author of the publication. The keyword index is created by running all terms appearing in document titles against a stoplist, (see Appendix B). A stoplist eliminates meaningless terms and helps to create a more usable index. An example of the key word index is included in Appendix A.

A program listing of the overall system documentation is included in Appendix C. This documentation identifies field limits, updating and purge programs which may be of interest to anyone doing a detailed analysis of the system and its strengths and limitations.

Geographic Index

Since the value of many publications seemed to be as much in the geographic area(s) they cover as in their subject matter, a special

geographic index was developed to facilitate the needs of those wanting information using a geographic term as a subject. This was particularly relevant to Utah planning agencies. The geographic index adds another access dimension to the key word index. An example of the geographic index is included in Appendix A.

Bibliographic Distribution

The masterlisting is updated continuously. Each multi-county receives a regular update at the end of each quarter. The first run of the entire system on microfiche was completed on April 17, 1975 in cooperation with the state archivist. This output totaled 4,175 pages of listings and indexes for the overall state listing alone. This reduces to only 18 microfiche at a 48X reduction which makes the cost of distribution minimal.

On Line Retrieval Capabilities

SEARCH in a COBOL program designed to allow a user to apply, and, or not principles of boolean logic, to any data appearing in the subject, title, geographic and publication date fields of each records on the masterlisting. SEARCH can be defined to search other fields as well up to the entire record.

The immediate advantage of the SEARCH program is the capability of producing special purpose bibliographies by combining terms to define a particular set of information. The program utilizes some syntax with which a user must be familiar, but for the most part is relatively simple to use since only five syntactic operators are needed if all program capabilities are utilized.

Searching may be done in three basic modes:

(1) A partial word search, or any document having the word in any given form will be identified as a possible find. For example an S:F1: ENVIRONMENT would also pick up ENVIRONMENTAL, ENVIRONMENTALIST or any other word form of ENVIRONMENT.

(2) A full word search or any document having the word ENVIRONMENT only would be identified as a find.

(3) A pattern match search or any document having the terms ENVIR and ASSESSMENT would be selected provided the terms appeared in that order in the document but irregardless of the number of words appearing between the two terms.

A partial word search is assumed by default if the user does not specify otherwise. This partial word search capability is helpful in that it allows a user to still find potentially useful material even though the user may not have anticipated plural or adjectival forms of the word entered.

Terms are combined with other terms using an ampersand (&). Similarly an either or relationship can be requested using an @ for or. Capability also exists for using a not relationship, that is X not Y, and a special operator has been developed to allow a user to delimit a search by time period as reflected in the date of publication.

Once the system has performed a search it tells the user how many documents have been found. The user then has the option of:

(1) Randomly looking at some of the titles to see if they meet his needs. If they do, a user may:

(a) Print the bibliography at his terminal with full citations

(b) Get a listing of state control numbers at the terminal

(c) Get a title listing only

(d) If the bibliography is large, elect to have it printed on the line printer at the computer center holding the file.

Cost of a given search is small and averages about 35¢ per search for a small file of about 2,000 items. In terms of economy and efficiency the system is designed to search small data files of up to 10,000 to 20,000 titles.

Regional Library Development

Probably the slowest developing portion of the overall project was and is the formal establishment of regional libraries. Most of the executive directors and others involved found commitment of space and shelving to be a problem for at least four basic reasons:

(1) "Present office space is inadequate, we will soon be moving into new quarters."

(2) "Our staff are so busy now, we are not sure we can properly organize, staff and maintain a library of any size."

(3) A general reluctance on the part of some executive directors to go to the steering boards of the multi-counties and ask for either a reallocation of space or new space.

(4) Limited funding in all of the multi-counties, even to the point where one executive director was concerned about postage costs to mail out minutes of meetings associated with development of the libra[illegible]nd information system.

As a result of these and other considerations including limited staff time on the part of Merrill Library staff, no region is fully established with the overall regional library concept. Virtually all regions have developed collections, have received the bibliography and are supportive of the program in all respects. A formal paper outlining full operational details of the regional libraries has been prepared and has been distributed to all regional libraries. These detailed guidelines should greatly facilitate library organization in all areas. In addition, a workshop follow up grant, with funding from the Kellog Foundation, through the Quality of Rural Life Program at USU and an additional grant from the U.S. Office of Education should provide the necessary follow up to complete library establishment and user orientation.

Advertising and Public Relations

Formal presentations regarding the overall system were made to many associations of governments steering boards, the natural resource and land use and water committees and all of the TAC and area rural development committees. Many additional presentations were made to other groups as well. See Appendix G for a listing of presentations. The system was well known throughout the state. Nevertheless a stronger communications program would have been a real asset. Much of the success in selling the program was a direct result of personal contacts by team members. While effective this proved to be a tedious and laborious process.

A slide tape program on the information system, see Appendix I, was developed late in the process, however, this should prove to be a highly useful communications tool. More printed material is still needed for

prospective system users to remind them of system availability and conditions of use.

Conclusions and Recommendations

As a project designed to apply existing technology and involve planners in the creation of a user oriented information system, the overall project was successful. The State Planning Coordinator has agreed to fund the system for fiscal 1975-1976. Grants to improve awareness, use and development of the information system as a subset of an overall community oriented planning process have been funded by the Kellog Foundation at USU; and by the U.S. Office of Education. The future of the system appears to be sound.

Perhaps the most critical concerns yet to be fully answered and which time and use alone can determine are:

(1) Can the Information System respond to meet the daily working needs of professional planners?

(2) Will the updating mechanism prove to be effective over time and in all areas of the state?

(3) Will the system actually reduce duplication of effort or are existing patterns and agency mandates so firmly fixed that no one is really too concerned with the duplication problem?

(4) Are the benefits of the system worth its relative cost in personnel time and other variable costs?

Unfortunately the time period of the grant proved to allow for only the barest of evaluation. If feedback from users of the system is valid then the information base is both effective and worth a great deal in savings of time and money. A sample listing of users of the system

appears in Appendix H. Significantly, none of the users of the system to date have been anything but positive in relative accessibility. Questions have arisen concerning cost, which in the future is variable depending upon the type of use (e.g. on line versus microfiche) and the complexity of the inquiries. Time should also determine the acceptance or rejection of microfiche as a publishing and distribution medium.

It is recommended that the system be formally adopted by the State Planning Coordinator and that the nature of the information base be expanded to include an even larger number of Utah oriented studies dealing with all aspects of planning. Emphasis should be especially strong in economics, transporation, and housing, and in identification of projects in progress.

As a result of experience with publications from many agencies a few trivial recommendations are in order that would make all agency material more palatable and easier to handle in libraries.

1. State and municipal agencies should adopt some uniform style manual.

2. All publications should have a title page other than the cover. This page should clearly state who published the item; who wrote it; where it was published; and when it was published.

3. It would be useful if publications were consistently paged.

While these items may seem minor, the absence of any degree of uniformity makes creation of a uniform information base much more difficult. Because of the additional time required to catalog most state

and municipal publications, many libraries treat them as ephemera and provide limited or no access to agency publications thereby removing them from the public to which the publication is directed.

The project is a strong demonstration of the social responsibility libraries and agencies have to the public of their state and region. Basic to this project is information sharing and the identification of information that has a common value to many interests. It is this identification of common information for multiple use by different agencies, libraries, citizens, etc. that underscores the importance and utility of a statewide land use information system.

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Woolley, Robert D. Utah Publications Retrieval System: Concept Paper and System Documentation. Logan, Utah: Merrill Library, Utah State University. 1975. 65 p.

Appendix A

Sample Program Outputs

I. Masterlisting, option one - commonly used format

II. Masterlisting, option two - the full 882 character record

III. Author Index

IV. Title Index

V. Agency Index or Location List

VI. Key word Index

VII. Geographic Index

0000104 11 11-65.4-18
MOUNTAIN AREA PLANNERS
COMPREHENSIVE WATER AND SEWERAGE PLAN FOR BEAVER COUNTY UTAH.
SALT LAKE CITY MOUNTAIN AREA PLANNERS 1969
P 87

0001146 31
BROWN, J.E. AND A.J. ERICKSON U.S. SOIL CONSERVATION SERVICE
CLASSIFICATION AND CORRELATION OF THE SOILS OF THE PAUNSAUGUNT AREA, UTAH.
PORTLAND, OREGON 1969
P 16

0001408 8
THUNE, H.W.
CEDAR CITY, UTAH TO LAS VEGAS, NEVADA.
SALT LAKE CITY UTAH GEOLOGICAL AND MINERALOGICAL SURVEY 1952

0001468 8
COHENOUR, R.E.
COAL RESOURCES OF PART OF THE ALTON AREA, KANE COUNTY, UTAH. REPORT OF INVESTIGATION NO.2.
SALT LAKE CITY UTAH GEOLOGICAL AND MINERALOGICAL SURVEY 1963

0001636 45 45-378.2-C127
CALDER, G.H.
CONSUMPTIVE USE OF WATER BY MAJOR FARM CORPS IN THE MILFORD DISTRICT OFUTAH. (THESIS USU)
LOGAN, UTAH 1953
P 46

0001972 66
U.S. DEPT. OF THE INTERIOR
DRAFT ENVIRONMENTAL STATEMENT. PROPOSED ZION WILDERNESS, ZION NATIONAL PARK, UTAH.
SALT LAKE CITY 1973
P 30

0002098 15
CRIDDLE, W.D. AND OTHERS
CONSUMPTIVE USE OF WATER BY NATIVE VEGETATION AND IRRIGATED CROPS IN THE VIRGIN RIVER AREA OF UTAH.
LOGAN, UTAH UTAH AGRICULTURAL EXPERIMENT STATION 1964
P 80

0002102 15
ADAMS, C.B.
COAL CREEK 1962. (WATER COMMISSIONER'S REPORT ON THE WATERS OF THE COAL CREEK DISTRIBUTION SYSTEM FOR THE YEAR 1962).
CEDAR CITY, UTAH 1963

0002103 15
HOLT, A.A.
COMMISSIONER'S ANNUAL REPORT OF WATER DISTRIBUTION IN ESCALANTE VALLEY, UTAH BERYL-ENTERPRISE AREA FOR 1963.
ENTERPRISE, UTAH BERYL-ENTERPRISE DISTRIBUTION SYSTEM 1964

REGIONAL LIBRARY LISTING
SOUTHEASTERN ASSOCIATIONS OF GOVERNMENT
04/15/75

STATE CONTROL #	REGIONAL ACCESSION #		
0000107	7000001	8	
		SUBJECT :	
		GEOGRAPHIC : UTAH, SOUTHEASTERN	
		STOKES, W.L.	
		URANIUM DEPOSITS AND GENERAL GEOLOGY OF SOUTHEASTERN UTAH.	
		SALT LAKE CITY UTAH GEOLOGICAL AND MINERALOGICAL SURVEY	1954
		P 115	
0000108	7000002	8	
		SUBJECT :	
		GEOGRAPHIC : UTAH, SOUTHEASTERN	
		HINTZE, L.F.	
		URANIUM DEPOSITS OF SOUTHEASTERN UTAH.	
		SALT LAKE CITY UTAH GEOLOGICAL AND MINERALOGICAL SURVEY	1967
		P 194	
0000148	7000003	10	
		SUBJECT :	
		GEOGRAPHIC : BLANDING; SAN JUAN COUNTY	
		UTAH DIVISION OF WATER RESOURCES	
		BLANDING PROJECT ENVIRONMENTAL IMPACT REPORT.	
		SALT LAKE CITY UTAH DIVISION OF WATER RESOURCES	1973
		P 30	
0000152	7000004	10	
		SUBJECT :	
		GEOGRAPHIC : BLANDING; SAN JUAN COUNTY	
		UTAH DIVISION OF WATER RESOURCES	
		BLANDING PROJECT FEASIBILITY STUDY.	
		SALT LAKE CITY UTAH DIVISION OF WATER RESOURCES	1973
		P 222	
0000444	7000006	8	
		SUBJECT :	
		GEOGRAPHIC : ANETH; SAN JUAN COUNTY	
		KALISER, B.N.	
		POLLUTION POTENTIAL EVALUATION - GREATER ANETH AREA OIL FIELD. REPORT OF INVESTI	
		SALT LAKE CITY UTAH GEOLOGICAL AND MINERALOGICAL SURVEY	1969
0000535	7000007	8	
		SUBJECT :	
		GEOGRAPHIC : PRICE RIVER; CARBON COUNTY; EMERY COUNTY	
		CORDOVA, R.M.	
		HYDROGEOLOGIC RECONNAISSANCE OF PART OF THE HEADWATERS AREA OF THE PRICE RIVER, UT	
		SALT LAKE CITY UTAH GEOLOGICAL AND MINERALOGICAL SURVEY	1964
		P 26	

UTHEASTERN

ITS AND GENERAL GEOLOGY OF SOUTHEASTERN UTAH.
Y UTAH GEOLOGICAL AND MINERALOGICAL SURVEY 1954

UTHEASTERN

ITS OF SOUTHEASTERN UTAH.
Y UTAH GEOLOGICAL AND MINERALOGICAL SURVEY 1967

J SAN JUAN COUNTY
OF WATER RESOURCES
ECT ENVIRONMENTAL IMPACT REPORT.
Y UTAH DIVISION OF WATER RESOURCES 1973

J SAN JUAN COUNTY
OF WATER RESOURCES
ECT FEASIBILITY STUDY.
Y UTAH DIVISION OF WATER RESOURCES 1973

AN JUAN COUNTY

ENTIAL EVALUATION - GREATER ANETH AREA OIL FIELD. REPORT OF INVESTIGATION #44.
Y UTAH GEOLOGICAL AND MINERALOGICAL SURVEY 1969

VER; CARBON COUNTY; EMERY COUNTY

RECONNAISSANCE OF PART OF THE HEADWATERS AREA OF THE PRICE RIVER, UTAH.
Y UTAH GEOLOGICAL AND MINERALOGICAL SURVEY 1964

COAL AND IRON ORE IN THEIR RELATION TO THE DEVELOPMENT OF AN IRON AND STEEL INDUSTRY IN UTAH.
STATE CONTROL # REGIONAL ACCESSION #

0004044 0000000

COAL CREEK DISTRIBUTION SYSTEM WATER REPORT 1961.

0002778 0000000

COAL CREEK 1962. (WATER COMMISSIONER'S REPORT ON THE WATERS OF THE COAL CREEK DISTRIBUTION SYSTEM

0002102 0000000

COAL FIELDS AND OIL SHALE DEPOSITS IN UINTAH BASIN.

0002696 0000000

COAL FIELDS OF NORTHWESTERN COLORADO AND NORTHEASTERN UTAH.

0002694 0000000

COAL LANDS WEST OF THE LANDS OF HUNTINGTON AND EMERY, EMERY COUNTY, UTAH. REPORT OF INVESTIGATION

0001466 0000000

COAL LANDS WEST OF THE TOWN OF HUNTINGTON AND EMERY, 3 EMERY COUNTY, UTAH. REPORT OF INVESTIGATION

0006830 0000000

COAL RESOURCES IN THE UNITED STATES. BULLETIN 1275

0005240 0000000

COAL RESOURCES OF PART OF THE ALTON AREA, KANE COUNTY, UTAH. REPORT OF INVESTIGATION NO.2.

0001468 0000000
0006809 0000000

COAL RESOURCES OF THE ANTIMONY. JOHN'S VALLEY AREA GARFIELD COUNTY, UTAH (NORTHWEST EXTENSION OF

0006810 0000000

CODE OF CAMP, TRAILER COURT, HOTEL, MOTEL AND RESORT SANITATION REGULATIONS.

0002551 0000000

STATE CONTROL #	REGIONAL ACCESSION #	
0003461	0000991	1971 HANDBOOK OF AGRICULTURAL CHARTS.
0003462	0000992	FREEZING TEMPERATURE PROBABILITIES IN UTAH.
0003463	0000993	CONSUMPTIVE USE AND WATER REQUIREMENTS FOR UTAH.
0003464	0000994	BASIC STATISTICS. NATIONAL INVENTORY OF SOIL AND WATER CONSERVATION NEEDS, 1967.
0003465	7000243	MINERAL RESOURCES, SANIJUANICOUNTY, UTAH AND ADJACENT AREAS. PART I: PETROLEUM, POTASH.
0003466	7000244	MINERAL RESOURCES, SANIJUANICOUNTY, UTAH, AND ADJACENT AREAS. PART III URANIUM AND OTHER METALS IN
0003467	0000995	DEVELOPING A STATE WATER PLAN.
0003468	0000996	LAND RESOURCE REGIONS AND MAJOR LAND RESOURCE AREAS OF THE U.S.
0003469	7000245	APPLICATION REPORT TO FARMERS HOME ADMINISTRATION FOR WATERWORKS IMPROVEMENTS. CITY OF BLANDING.
0003470	0000997	ARABLE LAND RESOURCES OF UTAH.
0003471	0000998	WATERSHED PROGRESS REPORT-UTAH.
0003472	7000246	SUMMARY REPORT ON WATER RIGHTS FOR CITY OF MOAB, UTAH.
0003473	7000247	OFFICE REPORT ON THE SEPTEMBER 1970 FLOODS. UPPER COLORADO RIVER BASIN, FOUR CORNERS AREA -
0003474	7000248	PLAN OF STUDY FOR FLOOD HAZARD INVESTIGATIONS. CITY OF MOAB AND VICINITY, GRAND COUNTY, UTAH.
0003475	0000999	PLANNING ANIMAL WASTE DISPOSAL SYSTEMS.
0003476	0001000	WASTE MANAGEMENT TO CONTROL POLLUTION.
0003477	7000249	PLAN OF WORK FOR THE SANIJUANIRIVERIBASIN.
0003478	7000250	WATER AND RELATED LANDIRESOURCES. DOLORESIRIVERIBASIN - COLORADO AND UTAH.
0003479	0001001	YIELD AND COMPOSITION OF UTAH'S RANGE SITES.
0003480	0001002	THE UTAH LAW OF WATER RIGHTS.
0003481	0001003	UTAH SEED LAW.
0003482	7000251	WATER AND RELATED LANDIRESOURCES - SANIJUANIRIVERIBASIN IN ARIZONA, COLORADO, NEW MEXICO, AND UTAH.
0003695	0001144	DEVELOPING A STATE WATER PLAN. GROUND-WATER CONDITIONS IN UTAH, SPRING OF...
0003696	0001145	DEVELOPING A STATE WATER PLAN. CLOUDBURST FLOODS IN UTAH, 1939-69.
0003697	0001146	DEVELOPING A STATE WATER PLAN. SUMMARY AND RECOMMENDATIONS.
0003698	7000278	COTTONWOOD IRRIGATION STUDY. SANIJUANICOUNTY WATER CONSERVANCY DISTRICT, MONTICELLO, UTAH.
0003699	7000279	MASTERIPLAN. GOALS AND POLICIES, GRANDICOUNTY UTAH MOAB CITY, SPANISH VALLEY.
0003700	7000280	ENGINEERING REPORT. WATER SYSTEM IMPROVEMENTS. CITY OF MONTICELLO, SANIJUANICOUNTY, UTAH.
0003701	0001147	FOUR CRITICAL SEDIMENT SOURCES.
0003702	0001148	A PRIMER ON AGRICULTURAL POLLUTION.
0003703	0001149	COMMUNITY ACTION GUIDEBOOK FOR SOIL EROSION AND SEDIMENT CONTROL.
0003704	0001150	AIDS FOR ESTIMATING SOIL ERODIBILITY - "K" VALUE CLASS AND SOIL LOSS TOLERANCE.
0003705	0001151	COMMUNITY IMPROVEMENT THROUGH RESOURCE CONSERVATION AND DEVELOPMENT.
0003706	0001152	FACTS AND FIGURES ABOUT THE 1968 SUMMER MOTOR VEHICLE TOURIST TO UTAH.
0003707	7000281	AN EVALUATION OF THE OUTDOOR RECREATION RESOURCES AND POTENTIALS OF THE SANIJUAN STUDY AREA.
0003708	0001153	LIST OF COMMON AND SCIENTIFIC PLANT NAMES FOR UTAH.
0003709	0001154	CLASSIFYING RANGELAND FOR CONSERVATION PLANNING.
0003710	0001155	DEVELOPMENT AND USE OF FOOTHILL RANGES IN UTAH.
0003711	0001156	CHEMICAL CONTROL OF RANGE WEEDS.
0003712	0001157	LIST OF SCIENTIFIC AND COMMON PLANT NAMES FOR UTAH.
0003713	7000282	CLASSIFICATION AND CORRELATION OF THE SOILS OF THE ANETH AREA UTAH.
0003714	7000283	MASTERIPLAN GOALS AND POLICIES - SANIJUANICOUNTY, UTAH, CITY OF BLANDING, CITY OF MONTICELLO.
0003715	0001158	A PROPOSAL FOR THE CONSTRUCTION OF COMMUNITY WATER SUPPLIES, INDIVIDUAL WASTE DISPOSAL SYSTEMS, AND
0003716	0001159	CHEMICAL WEED CONTROL GUIDE UTAH 1972.
0003717	0001160	ECONOMICS OF RANGE IMPROVEMENTS.
0003718	0001161	GUIDES TO ALLOCATING FORAGE BETWEEN CATTLE AND BIG GAME ON BIG GAME WINTER RANGE.
0003719	0001162	HOW TO HAVE MORE PHEASANT HUNTING.
0003720	0001163	A CONSERVATION PLAN FOR A DEVELOPING AREA.

Key word Index

GEOLOGY — URANIUM DEPOSITS AND GENERAL GEOLOGY OF SOUTHEASTERN UTAH.
0000107

GRAND COUNTY — APPRAISAL OF POTENTIALS FOR OUTDOOR RECREATION DEVELOPMENTS: GRAND COUNTY, UTAH
0001226

GEOLOGY OF THE SAN ARROYO GAS FIELD, GRAND COUNTY, UTAH. (THESIS U OF U).
44-QE3.5-1972-HA 0001191

GRAND COUNTY CHAMBER OF COMMERCE: SECOND PLANNING SURVEY.
0001325

MASTER PLAN/GRAND COUNTY UTAH. MOAB AND SPANISH VALLEY/1968-1985.
39-073U 0000735

SURFACE GEOLOGY OF THE MESOZOIC FORMATIONS OVERLYING THE UNCOMPAHGRE UPLIFT IN GRAND COUNTY, UTAH. (THESIS U OF U)
44-1961-378.242-G8745 0001393

GRAND FLAT — HIGHWAY U 95 ARCHEOLOGY. COMB WASH TO GRAND FLAT.
0000862

GREATER ANETH — POLLUTION POTENTIAL EVALUATION - GREATER ANETH AREA OIL FIELD. REPORT OF INVESTIGATION 844.
0000444

GREEN RIVER — GEOLOGY OF THE COLORADO RIVER FROM MOAB, UTAH, TO THE INFLOW OF GREEN RIVER. (THESIS U OF U)
44-378.242-S571G 0000993

GROUND — COLORADO RIVER STORAGE PROJECT UTAH-ARIZONA. GEOLOGY, GROUND WATER AND BANK STORAGE LAKE POWELL.
0006009

HEADWATERS — HYDROGEOLOGIC RECONNAISSANCE OF PART OF THE HEADWATERS AREA OF THE PRICE RIVER, UTAH.
0000535

HENRY — PRODUCTIVITY OF THE MULE DEER ON THE LA SAL AND HENRY MOUNTAINS OF UTAH (PUBLICATION NO. 70-2).
0000868

HIGHWAY — HIGHWAY U 95 ARCHEOLOGY. COMB WASH TO GRAND FLAT.
0000862

HISTORY — EARLY HISTORY OF UTAH'S DIXIE. (THESIS BYU)
46-378.2-R27 0003426

HISTORY OF THE MANTI FOREST, UTAH: A CASE OF CONSERVATION IN THE WEST. (THESIS U OF U).
44-S843.5-1972-H3 0000936

ADOBE WASH

STATE CONTROL #	REGIONAL ACCESSION #	TITLE
0003751	7000284	TECHNICAL FEASIBILITY REPORT FOR ADOBE WASH WATER STORAGE FACILITIES, ORANGEVILL

ALBION

0000453	2000316	PRELIMINARY (DRAFT): ALTA- ALBION RECREATION COMPLEX PLAN (MANUSCRIPT)

ALKALI RIDGE

0003951	7000321	ARCHAEOLOGY OF ALKALI RIDGE SOUTHEASTERN UTAH.

ALPINE

0005414	3000504	MASTER PLAN FOR ALPINE, UTAH.

ALPINE DRAPER TUNNEL

0006264	2001711	INSTALLATION OF LINER PLATES. ALPINE-DRAPER TUNNEL. PROVO RIVER PROJECT, UTAH.

ALPINE-DRAPER TUNNEL

0004112	3000348	GEOLOGY OF THE ALPINE-DRAPER TUNNEL.
0005861	2001648	GEOLOGY OF THE ALPINE-DRAPER TUNNEL.

ALTA

0000093	2000075	ALTA/LITTLE COTTONWOOD CANYON: GENERAL PLAN.
0000302	2000218	GRIZZLY RESORT.
0000353	2000253	SOIL SURVEY AND INTERPRETATIONS OF THE ALTA - LITTLE COTTONWOOD STUDY AREA. SA
0000375	2000271	SOIL SURVEY AND INTERPRETATIONS OF THE ALTA-LITTLE COTTONWOOD STUDY AREA SALT
0000453	2000316	PRELIMINARY (DRAFT): ALTA- ALBION RECREATION COMPLEX PLAN (MANUSCRIPT)
0001484	2000724	GRIZZLY RESORT: A PRELIMINARY REPORT INDICATING FEASIBILITY OF GRIZZLY RESORT AT
0001625	2000845	ALTA/LITTLE COTTONWOOD CANYON STUDY. PRELIMINARY REPORT.
0001626	2000846	ALTA/LITTLE COTTONWOOD CANYON: GENERAL PLAN.

ALTON

Appendix B

Stoplist

Stoplist for the Key Word Index (*Note all numeric terms and words of three characters or less are automatically excluded as indexing terms.)

STOPLIST

ABOUT
ABOVE
ABSTRACTS
ACCELERATED
ACCEPTANCE
ACCOMPANY
ACCOMPANYING
ACCOMPLISHMENTS
ACCORDING
ACCUMULATION
ACHIEVEMENTS
ACQUIRING
ACTION
ACTIVITIES
ACTIVITY
ACUTE
ADDITION
ADDITIONAL
ADJACENT
ADJOINING
ADJUSTED
ADJUSTMENT
ADJUSTMENTS
ADVANCE
AFFAIRS
AFFECTED
AFFECTING
AFTER
AGES
AHEAD
ALLOCATION
ALLOCATIONS
ALLOWANCE
ALONG
ALPHABETICAL
ALSO
ALTERATION
ALTERED
ALTERNATE
ALTERNATIVE
AMENDED
AMONG
AMOUNTS
AMOUNT
ANALYTICAL
ANALYZING
ANNOTATED
ANNUAL
ANTICIPATED
APPEAL
APPENDICES
APPENDIX
APPENDIXES
APPLICABILITY
APPLICATION
APPLICATIONS
APPLIED
APPURTENANT
APRIL
AREA
AREA-WIDE
AREAS
AROUND
ASSIGNING
ASSOC
ASSOCIATED
AUGUST
AUTHORIZED
AVAILABLE
AWARENESS
BASE
BASED
BASIC
BASIS
BECOMES
BEFORE
BEING
BELLS
BELOW
BENEFICIAL
BENEFIT
BENEFITS
BETTER
BETTERMENT
BETWEEN
BIENNIAL
BIENNIUM
BLOCK
BLVD
BOARD
BRIEF
BROAD
BUILD
CALL
CARE
CARRYING
CASE
CASES
CAUSATIVE
CAUSED
CAUSES
CAUSING
CENTURY
CERTAIN
CERTIFICATION
CHAINED
CHALLENGE
CHAMBER
CHANGE
CHANGES
CHANGING
CHAPTER
CHARACTER
CHARACTERISTICS
CHARACTERIZING
CHECK
CHECKING
CHOICE
CIRCULAR
CIRCULARS
CIVIL
CLASS
CLASSIFIED
CLASSIFYING
CLEARING
CLINIC
CLIPPING
CLOSE
CLOSELY
COEFFICIENT
COLLECTED
COLLECTING
COMFORTABLE
COMMENTING
COMMENTS
COMMON
COMMONS
COMPARATIVE
COMPARED
COMPARISON
COMPARISONS
COMPLIATION
COMPLIATIONS
COMPLETED
COMPLEX
COMPLEXED
COMPONENT
COMPONENTS
COMPOSITION
COMPRISING

CONCENTRATED
CONCEPT
CONCEPTION
CONCEPTUAL
CONCERNING
CONCERNS
CONCLUSIONS
CONDITIONS
CONDUCT
CONDUCTED
CONJUNCTIVE
CONNECTED
CONSIDERATION
CONSISTENCY
CONTACT
CONTACTED
CONTACTS
CONTAIN
CONTAINED
CONTAINS
CONTEMPORARY
CONTENT
CONTENTS
CONTINUING
CONTRIBUTED
CONTRIBUTING
CONTROLLED
CONTROLLING
CONVENTIONAL
COOPERATIVE
COPY
CORP
CORPS
CORRECTION
CORRELATED
COUNT
COUNTING
COUNTS
COURSE
CRITERIA
CRITICAL
CURRENTLY
CURSORY
DAILY
DATA
DATE
DEALING
DECEMBER
DECISION
DECISIONS
DECLINING
DEEP
DEFINED
DEFINITE
DEFINITION
DEFINITIONS
DELIVERY
DEPARTMENT
DEPT
DESCRIPTION
DESCRIPTIONS
DESIGNATED
DESIRED
DETACHMENT
DETAILED
DETERMINING
DIFFERENT
DIGEST
DIRECT
DIRECTION
DIRECTIONS
DISAPPEARANCE
DISCOVERED
DISCOVERING
DISCUSSING
DISOLVED
DISSOLVED
DIVISION
DOMESTIC
DONE
DUPLICATION
DUPLICATIONS
DURING
EARLY
EDITION
EFFECT
EFFECTIVE
EFFECTS
EFFICIENCIES
EFFORT
EIGHTH
EITHER
ELEMENT
ELEVATED
EMERGENCE
EMERGING
EMPHASIS
ENDING
ENFORCEMENT
ENTERING
ENTERS
ENVELOPE
ESSENTIAL
ESTABLISH
ESTABLISHING
ESTIMATE
ESTIMATED
ESTIMATES
ESTIMATING
ESTIMATION
EVALUATING
EVALUATION
EVALUATIONS
EVER
EVIDENCE
EXAMPLE
EXCERPT
EXCERPTS
EXCHANGE
EXCLUSIVE
EXECUTIVE
EXISTING
EXPANDING
EXPECTANCY
EXPECTATION
EXPERIENCE
EXPERIMENTAL
EXTENSIONS
ESTENT
EXTERNAL
EXTRACT
EXTRACTED
EXTRANEOUS
FACE
FACILITIES
FACILITY
FACT
FACTOR
FACTORIAL
FACTORS
FACTS
FADING
FALL
FASTEST
FAVORABLE
FEATURES
FEBRUARY
FIFTEENTH
FIFTH
FIGURES

FINAL
FINDINGS
FINISH
FIRST
FISCAL
FITS
FIVE
FLIGHT
FLIGHTS
FOOR
FORCE
FORM
FORMERLY
FOUND
FOUR
FOURTEENTH
FOURTH
FRAIL
FREE
FROM
FULL
FUNCTION
FUNCTIONAL
FUNCTIONS
FURNISHED
GENERAL
GOVERNING
GREATER
GROUP
GROUPS
GROW
GROWING
GROWN
GROWS
HALL
HANDLING
HAPPEN
HAVE
HEAD
HEAVY
HELP
HIGH
HUNDRED
IMPLEMENTATION
IMPLEMENTING
IMPLICATIONS
IMPORTANCE
IMPORTANT
IMPROVING
INCIDENCE
INCIDENTAL
INCLUDED
INCLUDES
INCLUDING
INCLUSIVE
INCORPORATED
INCREASE
INCREASED
INCREASES
INCREASING
INDICATING
INDIVIDUAL
INDIVIDUALLY
INEFFICIENCIES
INFLUENCE
INFLUENCED
INFLUENCES
INFORMATION
INITIAL
INNER
INPUT
INTEGRAL
INTERIM
INITIAL
INTO
INTRODUCED
INTRODUCTORY
INVESTIGATE
INVESTIGATION
INVESTIGATIONS
INVOLVED
INVOLVEMENT
JANUARY
JULY
JUNE
JUSTIFICATION
JUSTIVICATIONS
KEEP
KNOW
KNOWLEDGE
LARGE
LARGER
LAST
LATE
LETTING
LEVEL
LEVELS
LIEU
LIKE
LIMITED
LIST
LISTING
LISTINGS
LITTLE
LIVE
LIVING
LOCATED
LOCATION
LOCATIONS
LOGICAL
LOSS
LOSSES
LOST
LOWER
LOWERMOST
LYING
MAJOR
MAKE
MAKING
MARKED
MAXIMIZING
MAY-JUNE
MEAN
MEANINGFUL
MEANS
MEMBER
MID-YEAR
MIDDLE
MINIMUM
MISCELLANEOUS
MIXED
MODERATE
MODIFICATIONS
MONTH
MONTHLY
MONTHS
MORE
MOST
MUCH
MULTIPLE
MUST
NEAR
NEGATIVE
NEITHER
NEWEST
NEWLY
NEXT
NINE
NINTH
NOTEBOOK

NOTES
NOVEMBER
OBTAINED
OCCASIONAL
OCCURRED
OCCURRENCE
OCCURRENCES
OCTOBER
ONLY
OPEN
OPERATING
OPERATION
OPERATIONAL
OPERATIONS
OPERATOR
OPPORTUNITIES
OPPORTUNITY
OPTIMIZING
OTHER
OVER
OVERALL
PAIR
PAPER
PAPERS
PART
PARTIAL
PARTICULAR
PARTS
PATS
PERMANENT
PERSONAL
PERTAINING
PERTINENT
PLACE
POSITION
POSITIVE
POSSIBILITIES
POSSIBLE
POTENTIALLY
PREPARATION
PREPARED
PREPARING
PRESENT
PRESENTED
PRESENTING
PRINCIPAL
PRIOR
PROBABILITIES
PROBABILITY
PROBABLE
PROFESSIONAL
PROGRAM
PROGRAMS
PROGRAMMING
PROGRESS
PROJECT
PROJECTS
PROMOTE
PROPER
PROVIDING
PUBLICATION
PUBLICATIONS
PURPOSE
PURPOSES
RECENT
RECOGNITION
RECOMMENDED
REGARDING
REGULAR
RELATED
RELATING
RELATION
RELATIONS
RELATIONSHIP
RELATIONSHIPS
RELATIVE
RELEASE
RELEASED
RELEVANT
REPORT
REPORTS
REPRINTED
RESIDING
RESPONSIBILITIES
REST
RESTRAINTS
RESULTS
ROUGH
SEPT
SEPTEMBER
SERIES
SEVENTEENTH
SEVENTH
SHOWING
SHOWN
SIGNIFICANCE
SIGNIFIGANCE
SITUATED
SIXTEEN
SIXTH
SIXTY
SMALL
SOME
SOON
SORT
SPECIAL
SPECIFIC
SPOT
STATEMENT
STATEMENTS
STUDIES
STUDY
SUBSEQUENT
SUGGESTED
SUPERIOR
SUPPLEMENT
SUPPLEMENTAL
SUPPLEMENTARY
SUPPLEMENTS
SUPPORTED
SURROUNDING
SYNOPSIS
TENTH
THAT
THEIR
THEM
THERE
THIRD
THIRTEENTH
THIRTY-EIGHTH
THREE
THROUGH
TODAY
TOGETHER
TOMORROW
TOTAL
TOWARD
TOWARDS
TRANS
TWELFTH
TWENTY
TWENTY-EIGHT
TWENTY-FIFTH
TWENTY-FOURTH
ULTIMATE
UNDER
UPDATING
UPON
UPPER
VARIOUS

VERSUS
VIII
VITAL
VOLUME
VOLUMES
WHAT
WHERE
WHICH
WILL
WITH
WITHIN
WITHOUT
WORKABLE
WOULD
WRITTEN
XIII
XVII
XVIII
YEAR
YEARS
YOUR

Appendix C

Basic System Documentation for All Computer Programs Except SEARCH

Prepared by

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Utah State University

PROGRAMS IN LIBRARY SYSTEM

LIBRARY/UPDATE 1

LIBRARY/BREAKMASTER. 4

LIBRARY/KWOC 6

LIBRARY/LISTING. 8

LIBRARY/LOCATION 10

LIBRARY/GEOGRAPHY. 12

LIBRARY/AUTHOR 14

LIBRARY/SUBJECT. 16

LIBRARY/TITLE. 18

LIBRARY/PURGEMASTER. 21

LIBRARY/UPDATE

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
MASTER-OUT	LIBRARY/MASTER	TAPE	OUTPUT
TEMP-FILE	LIBRARY/TEMP	DISKPACK	WORK SPACE
CARD-FILE		READER	INPUT
ERROR-FILE		PRINTER	OUTPUT
DEL-FILE	LIBRARY/DELETES	TAPE	OUTPUT
COUNTERS	LIBRARY/COUNTERS	DISKPACK	I/O
SORT-FILE		DISK OR DISK AND 3 TAPES	WORK SPACE

Purpose:

This program is used to do the following:

Add books to the master file.

Delete books from the master file.

Change or delete any individual item in any of the existing books on the master file.

Options:

Add:

To add a book to the master file a card with "*NEW*" in Card Columns 1 thru 5 followed by all cards relating to that book with the state number blank are placed in the update card deck. Each new book must have a valid region number in the first region position in card 14. This region will be considered the primary region for all reports. This program will assign a single state number and a region number for each region requested.

Delete:

To delete a book from the master file place the state number for the book in column 1 thru 7 and a "0-8-2" (upper case T on the IBM 29 key punch) in column 8. This will remove the book from the master file and save it on the delete file for future reference.

Change on existing book:

To change any item relating to a book in the master file place the state number for the book in column 1 thru 7 and place the information to be substituted in the appropriate location on the corresponding card. Only items with something in them on the update card will be updated.

Item delete on existing book:

To remove any item relating to a book in the master file place the state number, appropriate card number and a "0-8-2" (upper case T on the IBM 29 key punch) in the first card column of the card field to be deleted. This will overlay the effected file item with spaces.

Run Deck:

```
1 JOB

1 USER

1 BEGIN

1 RUN LIBRARY/UPDATE

1 DATA "CARD-FILE"
  Library update cards are placed here

1 END JOB
```

Output:

Printed output from this program will be the update cards that are found to be in error and an explaination of the error.

Special instructions and limits:

Region changes and deletes:

To delete existing region numbers on a book in the library master, place a "0-8-2" punch in the corresponding region filed in card 14.

Note: The primary region number may not be deleted.

To change the primary region number place the number of the new primary region number in card col 59 in update card 14.

To assign new region numbers simply place the region or regions to be assigned in update card 14 starting in card col 60.

IE.

Card col 1-7	col 8-9	col 59	col 60	col 62
0000014	14	5	3	"0-8-2"

This update card will make region 5 the primary region and assign a region 5 number to it if one isn't already assigned. Then it will assign a region 3 number to this book if one doesn't already exist. Then it will remove the region 4 number for this book. Once a number is removed it will not be reused.

LIBRARY/BREAKMASTER

Files:

TAPE-IN	LIBRARY/MASTER	TAPE	INPUT
TAPE-OUT	LIBRARY/MASTER	TAPE	OUTPUT
CARD-FILE		READER	INPUT

Purpose:

This program is used to create a master file that contains all books relating to any region or group of regions that are on the input master file.

Options:

Region requests are made by placing an "*" in the card columns represented by the table below. In the selection of books for the output master, books with primary region numbers that have been specified on the control card are used.

Card Column	Region Requester
1	Bear River Associations of Government
2	Wasatch Front
3	Mountainlands Associations of Government
4	6 County Association of Government
5	5 County Association of Government
6	Uintah Basin Association of Government
7	Southeastern Association of Government
8	Null
9	Over all State books.

Run Deck:

```
¢ JOB

¢ USER

¢ BEGIN

¢ RUN LIBRARY/BREAKMASTER

¢ DATA "CARD-FILE"
  Control card is placed here

¢ END JOB
```

Output Expected:

The only printed output that comes from this job is the display of the region counters. These numbers represent the number of books in each region that have been placed on the output master file.

LIBRARY/KWOC

Files:

CARD-FILE		READER	INPUT
STOP-FILE		READER	INPUT
DISK-CARD-FILE	LIBRARY/DISKCARDFILE	DISK	WORK SPACE
PRINT-FILE		PRINTER	OUTPUT
SORT-FILE		DISK OR DISK AND 3 TAPES	WORK SPACE
SORT-FILE1		DISK OR DISK AND 3 TAPES	WORK SPACE
SORT-FILE2		DISK OR DISK AND 3 TAPES	WORK SPACE
MASTER-FILE	LIBRARY/MASTER	TAPE	INPUT

Purpose:

To provide a listing of books grouped by each word or word group in the title that is not found in the "stop-file" nor ignored by the built in rules.

Options:

If additional information is to be added to the title of any book place the state number of that book in card columns 1-9 and the information to be added on the rest of the card.

Run Deck:

1 JOB

1 USER

1 BEGIN

1 RUN LIBRARY/KWOC

1 DATA "CARD-FILE" (if no extra information is added, leave this card out)
Place additional information to be added here.

1 DATA "STOP-FILE"
Place words not to be keyed on here. Each may be 1 to 20 characters long starting in card column 8.

1 END JOB

Output Expected:

The output from this program is the listing requested breaking on change in word keyed on with the following printed for each book:

Complete title
Call number
State number

LIBRARY/LISTING

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
CONTROL-FILE		RENDER	INPUT
PRINT-FILE		PRINTER	OUTPUT
SORT-F[illegible]		DISK OR DISK AND 3 TAPES	WORK SPACE

Purpose:

This program is used to create a complete listing of the books found on the Master file. The printout from this program is formatted for easy reading of all information printed.

Options:

The two types of listings available are the overall listing which is received by placing an "Ø" in column 1 of the Control Card or the regional listing which is received by placing a "R" in column 1.

Books can either be sorted by State Number by placing a "S" in column 2 of the Control Card, or by Region Number by placing a "R" in column 2 of the Control Card.

Overall Listing:

This listing will show all books and will show the primary region number as the region number on the listing.

Region Listing:

This listing will group all books from each region into an individual report. For all books except

Overall State books (primary region #9) the primary region number will indicate which listing they appear in and will be the region number used in the report. Overall State books can be allowed to appear in all the region listings by leaving column 3 blank on the control card or be forced into only one listing by placing that region number in column 3. If a region number has been assigned to the region requested on Overall State books, it will be used, otherwise, the primary region number will be used.

IE.

RS1 for a control card would request a region listing sorted by state book number with all Overall State books appearing only in the listing for region #1.

Run Deck:

```
1 JØB
1 USER
1 BEGIN
1 RUN LIBRARY/LISTING
1 DATA "CØNTROL-FILE"
1 END JØB
```

Output Expected:

The output from this program will be the requested printed listing.

LIBRARY/LOCATION

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
PRINT-FILE		PRINTER	OUTPUT
CONTROL-FILE		READER	INPUT
LOCATION-FILE		READER	INPUT
SORT-FILE		DISK OR DISK AND 3 TAPES	WORK SPACE

Purpose:

This program is used to create a listing of the books found on the Master file for the requested locations.

Options:

Books can either be sorted by State number by placing a "S" in column 1 of the control card or by Region number by placing a "R" in column 1.

To specify locations requested an "*" in column 2 will list all locations or 1 to 26 different locations may be requested by placing the 3 digit numbers in the control card starting in column 3.

IE.

SØØ10011001 for a control card would request a state sort for all books with location 10, 11, or 1.

Run Deck:

```
1 JOB
1 USER
1 BEGIN
1 RUN LIBRARY/LØCATIØN
```

```
1 DATA "CØNTRØL-FILE"
  control card is placed here

1 DATA "LØCATIØN-FILE"
  location heading file is placed here

1 END JØB
```

Output Expected:

The printed output from this program will be the requested location listings with the corresponding headings provided.

LIBRARY/GEOGRAPHY

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
PRINT-FILE		PRINTER	OUTPUT
CØNTRØL-FILE		READER	INPUT
SØRT-FILE		DISK OR DISK AND 3 TAPES	WORKSPACE

Purpose:

This program is used to create a listing of the books found on the Library Master file by Geographic description.

Options:

The two types of listings available are the overall listing which is received by placing an "Ø" in column 1 of the Control Card or the regional listing which is received by placing a "R" in column 1.

Books can either be sorted by State Number by placing a "S" in column 2 of the Control Card, by Region Number by placing a "R" in column 2 of the Control Card, or by the first 100 characters of the title by placing a "T" in column 2 of the Control Card.

Overall Listing:

This listing will show all books and will show the primary region number as the region number on the listing.

Region listing:

This listing will group all books from each region into an individual report. For all books except

Overall State books (primary region #9) the primary region number will indicate which listing they appear in and will be the region number used in the report. Overall State books can be allowed to appear in all the region listings by leaving column 3 blank on the control card or be forced into only one listing by placing that region number in column 3. If a region number has been assigned to the region requested on Overall State books, it will be used, otherwise the primary region number will be used.

IE.

RS1 for a control card would request a region listing sorted by State book number with all Overall State books appearing only in the listing for region #1.

Run Deck:

```
1 JØB
1 USER
1 BEGIN
1 RUN LIBRARY/GEØGRAPHY
1 DATA "CØNTRØL-FILE"
  control card is placed here
1 END JØB
```

Output Expected:

The printed output from this program will be the requested geographic listing.

LIBRARY/AUTHOR

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
PRINT-FILE		PRINTER	OUTPUT
CØNTRØL-FILE		READER	INPUT
SORT-FILE		DISK OR DISK AND 3 TAPES	WORK SPACE

Purpose:

This program is used to create a listing of the books found on the Library Master File by Author. Both author fields on the master file are combined to get this listing.

Options:

The two types of listings available are the overall listing which is received by placing an "Ø" in column 1 of the Control Card or the regional listing which is received by placing a "R" in volumn 1.

Books can either be sorted by State Number by placing a "S" in column 2 of the Control Card, by Region number by placing a "R" in column 2 of the Control Card, or by the first 100 characters of the title by placing a "T" in column 2 of the Control Card.

Overall Listing:

This listing will show all books and will show the primary region number as the region number on the listing.

Region Listing:

This listing will group all books from each region into an individual report. For all books except Overall State books (primary region #9) the primary region number will indicate which listing they appear in and will be the region number used in the report. Overall State books can be allowed to appear in all the region listings by leaving column 3 blank on the Control Card or be forced into only one listing by placing that region number in column 3. If a region number has been assigned to the region requested on Overall State books it will be used otherwise the primary region number will be used.

IE.

RS1 for a control card would request a Region listing sorted by State book number with all Overall State books appearing only in the listing for region #1.

Run Deck:

```
1 JØB
1 USER
1 BEGIN
1 RUN LIBRARY/AUTHØR
1 DATA "CØNTRØL-FILE"
  place control card here
1 END JOB
```

Output Expected:

The output from the program will be the requested listing.

LIBRARY/SUBJECT

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
PRINT-FILE		PRINTER	OUTPUT
CONTROL-FILE		READER	INPUT
SORT-FILE		DISK OR DISK AND 3 TAPES	WORK SPACE

Purpose:

This program is used to create a listing of the books found on the Master file by subject description.

Options:

The two types of listings available are the overall listing which is received by placing an "Ø" in column 1 of the Control Card or the regional listing which is received by placing a "R" in column 1.

Books can either be sorted by State Number by placing a "S" in column 2 of the Control Card, by Region number by placing a "R" in column 2 of the Control Card, or by the first 100 characters of the title by placing a "T" in column 2 of the Control Card.

Overall Listing:

This listing will show all books and will show the primary region number as the region number on the listing.

Region Listing:

This listing will group all books from each region into an individual report. For all books except

Overall State books (primary region #9) the primary region number will indicate which listing they appear in and will be the region number used in the report. Overall State books can be allowed to appear in all the region listings by leaving column 3 blank on the control card or be forced into only one listing by placing that region number in column 3. If a region number has been assigned to the region requested on Overall State books, it will be used, otherwise, the primary region number will be used.

IE.

RS1 for a control card would request a region listing sorted by State book number with all Overall State books appearing only in the listing for region #1.

Run Deck:

```
1 JOB
1 USER
1 BEGIN
1 RUN LIBRARY/SUBJECT
1 DATA "CØNTRØL-FILE"
  place the control card here
1 END JOB
```

Output Expected.

The printed output from this job will be the requested listing.

LIBRARY/TITLE

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
PRINT-FILE		PRINTER	OUTPUT
CONTROL-FILE		READER	INPUT
SORT-FILE		DISK OR DISK AND 3 TAPES	WORK SPACE

Purpose:

This program is used to create a listing of the books found on the master file by the full title.

Options:

The two types of listings available are the overall listing which is received by placing an "Ø" in column 1 of the Control Card or the regional listing which is received by placing a "R" in column 1.

Books can either be sorted by State Number by placing a "S" in column 2 of the Control Card or by Region Number by placing a "R" in column 2 of the Control Card.

Overall Listing:

This listing will show all books and will show the primary region number as the region number on the listing.

Region Listing:

This listing will group all books from each region into an individual report. For all books except Overall State books (primary region #9) the primary retion number will indicate which listing they appear

in and will be the region number used in the report. Overall State books can be allowed to appear in all the region listings by leaving column 3 blank on the control card or be forced into only one listing by placing that region number in column 3. If a region number has been assigned to the region requested on Overall State books it will be used, otherwise, the primary region number will be used.

IE.

RS1 for a control card would request a region listing sorted by State book number with all Overall State books appearing only in the listing for region #1.

Run Deck:

```
1 JØB
1 USER
1 BEGIN
1 RUN LIBRARY/TITLE
1 DATA "CØNTRØL-FILE"
  Place the control card here.
1 END JØB
```

Output expected:

The printed output from this job will be the requested listing.

LIBRARY/PURGEMASTER

Files:

MASTER-IN	LIBRARY/MASTER	TAPE	INPUT
MASTER-OUT	LIBRARY/MASTER	TAPE	OUTPUT
TEMP-FILE	LIBRARY/TEMPMASTER	DISK	WORK SPACE
DEL-FILE		PRINTER	OUTPUT
SORT-FILE		DISK OR DISK AND 3 TAPES	WORK SPACE
SORT-FILE1		DISK OR DISK AND 3 TAPES	WORK SPACE

Purpose:

This program provides a means of deleting duplicate books from the master file without going thru the regular update program.

Options:

This program sorts the books on the input master by the first 85 characters of the title and removes all duplicate books. Information from the first book to return from the sort is assumed correct with the following exceptions:

a. Geographic information is checked against the first book and if it does not appear is added.

b. Subject information is checked against the first book and if it does not appear is added.

c. Region numbers are checked against the first book and if not assigned are added.

d. Location numbers are checked against the first book and if missing are added.

e. If the first three letters in any call number for duplicate books is "USU" that call number is assumed correct.

Run Deck:

```
1 JOB
1 USER
1 BEGIN
1 RUN LIBRARY/PURGEMASTER
1 END JOB
```

Output Expected:

The printed output from this program will be a copy of the master file for each book that is removed from the Master file.

MAJOR FILES IN LIBRARY SYSTEM

LIBRARY/MASTER

LIBRARY/DELETE

LIBRARY/COUNTERS

CARD FILE FOR UPDATE

LIBRARY/MASTER

Description:

Record length:	882 characters
Block size:	5 records
Save factor:	999 days
Device:	1600 BPI 9 track tape.

Programs using LIBRARY/MASTER

LIBRARY/UPDATE

LIBRARY/BREAKMASTER

LIBRARY/KWOC

LIBRARY/LISTING

LIBRARY/LOCATION

LIBRARY/GEOGRAPHY

LIBRARY/AUTHOR

LIBRARY/SUBJECT

LIBRARY/TITLE

LIBRARY/PURGEMASTER

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

MULTIPLE-CARD LAYOUT FORM

Form X24-6599-0
Printed in U. S. A.

Company LIBRARY/MASTER

Application ______ by ______ Date ______ Job No. ______ Sheet No. 1

State control number	Region one number	Region two number	Region three number	Region four number	Region five number	Region six number	Region seven number	Region eight number	Region nine number	Primary region pointer	Title

Title continued

Title continued

Title continued	Subject

Subject contined

Subject contined	Geography

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

Form X24-6599-0
Printed in U. S. A.

MULTIPLE-CARD LAYOUT FORM

Company LIBRARY/MASTER

Application _____ by _____ Date _____ Job No. _____ Sheet No. 2

Geography continued

Geography continued | Call number

Call number continued | Author 1. | Author 2.

Author 2 continued | Publication Location | Publisher

Publisher continued | Publication date | Locations | Pages | Scale

Scale cont.

LIBRARY/DELETE

Description:

Record length:	882 characters
Block size:	5 records
Save factor:	999 days
Device:	1600 BPI 9 track tape

Programs using LIBRARY/DELETE

LIBRARY/UPDATE

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

MULTIPLE-CARD LAYOUT FORM

Form X24-6599-0
Printed in U. S. A.

Company LIBRARY/DELETE

Application ______ by ______ Date ______ Job No. ______ Sheet No. 1

Card 1:

State control number	Region one number	Region two number	Region three number	Region four number	Region five number	Region six number	Region seven number	Region eight number	Region nine number	Primary region pointer	Title
1–7	8–14	15–21	22–28	29–35	36–42	43–49	50–56	57–63	64–70	71	72–80

Card 2:

Title continued
1–80

Card 3:

Title continued
1–80

Card 4:

Title continued	Subject
1–71	72–80

Card 5:

Subject continued
1–80

Card 6:

Subject continued	Geography
1–71	72–80

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

MULTIPLE-CARD LAYOUT FORM

Form X24-6599-0
Printed in U. S. A.

Company LIBRARY/DELETE

Application _____ by _____ Date _____ Job No. _____ Sheet No. 2

Geography Continued

Geography continued | call number

Call number continued | Author 1 | Author 2

Author 2 continued | Publication Location | Publisher

Publisher continued | Publication date | Locations | Pages | Scale

Scale cont.

LIBRARY/COUNTERS

Description:

Record length:	80 characters
Block size:	unblocked
Save factor	999 days
Device:	Disk pack

Programs using LIBRARY/COUNTERS

LIBRARY/UPDATE

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

Form X24-6599-C
Printed in U. S. A.

MULTIPLE-CARD LAYOUT FORM

Company LIBRARY/COUNTERS

Application _____ by _____ Date _____ Job No. _____ Sheet No. _____

State Counter	Region 1 Counter	Region 2 Counter	Region 3 Counter	Region 4 Counter	Region 5 Counter	Region 6 Counter	Region 7 Counter	Blank	Overall State Counter	Blank	Date last update was ran
9999999	9999999	9999999	9999999	9999999	9999999	9999999	9999999	9999999	9999999	99	99999999
1 2 3 4 5 6 7	8 9 10 11 12 13 14	15 16 17 18 19 20 21	22 23 24 25 26 27 28	29 30 31 32 33 34 35	36 37 38 39 40 41 42	43 44 45 46 47 48 49	50 51 52 53 54 55 56	57 58 59 60 61 62 63	64 65 66 67 68 69 70	71 72	73 74 75 76 77 78 79 80

CARD FILE FOR UPDATE

Description:

Record length: 80 characters

Device: Card Reader

Programs using this file:

LIBRARY, UPDATE

Special features for Update Card file:

Subject: This is for the subject referrences for this book. Up to twenty subjects may be specified for each book and must be separated by a semi colon (;).

Geographic: This is for the geographic descriptors for this book. Up to twenty geographic descriptors may be specified for each book and must be separated by a semi colon (;).

Title: If two or more words in the title are to be considered a single item by "LIBRARY/KWOC" a logical not ("1") upper case "Y" on an IBM 29 punch) should be used in place of the space separating them.

Pages: Scale and page are mutually exclusive with scale taking priority. On the page entry a "P" will be inserted before what ever is placed in this position.

Location: Up to three locations can be specified for each book. The locations must be separated by a comma (,) and can not exceed 999 in value.

Region: To indicate that a book is of interest to the Overall State either a region "O" or "9" may be indicated. Both the zero and nine are stored in the master file as a nine.

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

Form X24-6599-0
Printed in U. S. A.

MULTIPLE-CARD LAYOUT FORM

Company: Card file for LIBRARY/UPDATE

Application _____ by _____ Date _____ Job No. _____ Sheet No. 1

State Control#	01	Call Number	Author	Blank
State Control#	02	Author (Agency & Dept).		
State Control#	03	Subject (characters 1-71)		
State Control#	04	Subject (characters 72-142)		
State Control#	05	Subject (characters 143-160)	Blank	
State Control#	06	Geographic (characters 1-71)		

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

Form X24-6599-0
Printed in U. S. A.

MULTIPLE-CARD LAYOUT FORM

Company Card file for LIBRARY/UPDATE

Application _____ by _____ Date _____ Job No. _____ Sheet No. 2

State Control#	07	Geographic (characters 72-142)
State Control#	08	Geographic (characters 143-160) | Blank
State Control#	09	Title (Characters 1-71)
State Control#	10	Title (characters 72-142)
State Control#	11	Title (characters 143-213)
State Control#	12	Title (characters 214-240) | Blank

IBM

INTERNATIONAL BUSINESS MACHINES CORPORATION

MULTIPLE-CARD LAYOUT FORM

Form X24-6599-0
Printed in U. S. A.

Company: Card file for LIBRARY/UPDATE

Application ______ by ______ Date ______ Job No. ______ Sheet No. 3

State Control#	13	Place of Publication	Publisher

99999999999999999999999999999999999999999999999999999999999999999999999999999999
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

State Control#	14	Date of Publication	Pages	Scale	Location	Regions	Blank

99999999999999999999999999999999999999999999999999999999999999999999999999999999
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

99999999999999999999999999999999999999999999999999999999999999999999999999999999
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

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Appendix D

Participating Agency Listing

Participating Agency Listing

Utah Geological and Mineralogical Survey
University of Utah
University & 2nd South
Salt Lake City, Utah 84112
581-6831

Wasatch Front Regional Council Planning Office
Davis County Courthouse
Farmington, Utah 84025
399-9246

Utah Water Resource Dvision
State Capitol Building
Salt Lake City, Utah 84115
328-7757

Salt Lake City Planning Commission
C & C Building
Salt Lake City, Utah 84115

Salt Lake County Planning Commission
2033 South State Street
Salt Lake City, Utah 84115

Outdoor Recreation Agency
Rm. 105 State Capitol Bldg.
Salt Lake City, Utah 84115
328-5691

Institute for the Study of Outdoor
Recreation and Tourism
Utah State University
Logan, Utah 84322
752-4100 ext. 7854

Soil Conservation Service
River Basins
125 South State Street
Salt Lake City, Utah 84115
524-5056

Tooele Court House
Tooele, Utah 84074
882-5550

Soil Conservation Service
Federal Buidling
Ogden, Utah 84401
399-6331

Weber County Library
2464 Jefferson Avenue
Ogden, Utah 84404
399-8416

Farmers Home Administration
Ogden, Utah 84401
399-6271

Morgan County Library
48 West Young
Morgan, Utah 84050
829-3281

Bureau of Land Management
320 North 1st East
Kanab, Utah 84741
644-2672

Zion National Park
Springdale, Utah 84767
772-3256 or 772-3322

Southern Utah State College
351 West Center
Cedar City, Utah 84720
586-4411

Southwestern Utah District
Health Department
65 North Center
Escalante, Utah
826-4397

Bureau of Land Management
154 North Main
Cedar City, Utah 84720
586-9443

Manti-LaSal National Forest
Supervisors Office
350 East Main
Price, Utah 84501

Soil Conservation Service
Walker Bank Building
Price, Utah 84501
637-0041

Soil Conservation Service
Monticello Field Office
Monticello, Utah 84535
587-2481

Soil Conservation Service
Castle Dale Field Office
Castle Dale, Utah 84514
748-2337

U.S. Forest Service
Federal Building
Ogden, Utah 84401
399-6484

Soil Conservation Service Supply
125 South State Street
Salt Lake City, Utah 84115

Soil Conservation Service
Program Services Office
125 South State Street
Salt Lake City, Utah 84115
524-5053

Soil Conservation Service
Conservation Planning
125 South State Street
Salt Lake City, Utah 84115
524-5054

Soil Conservation Service
Snow Hydrology
125 South State Street
Salt Lake City, Utah 84115
524-5213

Utah State University Extension Service
Court House Building
Price, Utah 84501
637-3238

Bureau of Land Management
Salt Lake District Office
1750 South Redwood Road
Salt Lake City, Utah 84115
524-5348

Office of the State Planning Coordinator
State Capitol Buidling
Salt Lake City, Utah 84114
328-5254

Utah Water Rights Division
State Capitol Buidling
Salt Lake City, Utah 84114
328-8201

Weber County & Ogden Planning
Municipal Buidling
Ogden, Utah 84401
399-8201

Utah Bureau of Reclamation
Water & Land Operations Division
125 South State Street
Salt Lake City, Utah 84115
524-5436

U.S. Geological Survey
125 South State Street
Salt Lake City, Utah 84115
524-5640

Utah State Department of Highways
State Capitol Buidling
Salt Lake City, Utah 84114
328-5656

Bureau of Economic & Business
Research
University of Utah
Salt Lake City, Utah 84112
581-6333

University of Utah Library
University & 2nd South
Salt Lake City, Utah 84112
581-6085

Utah State University
Merrill Library
UMC 30
Logan, Utah 84322

Brigham Young University
Library
University Hill
Provo, Utah 84601
374-8322

U.S. National Weather Service
Administration
125 South State Street
Salt Lake City, Utah 84115
524-5133

Bureau of Land Management
Utah State Office
125 South State Street
Salt Lake City, Utah 84115
524-5311

Water Research Laboratory
Utah State University UMC 82
Logan, Utah 84322
752-4100 ext. 7951

Utah State University
Agricultural Experiment Station
UMC 48
Logan, Utah 84322
752-4100 ext. 7341

U.S. Forest Service
Regional Office
Federal Buidling
324 25th Street
North Ogden, Utah 84401
399-6011

Davis County Planning Commission
Davis Court House
Farmington, Utah 84025
867-2211

U.S. Bureau of Mines
16000 East 1st South
Salt Lake City, Utah 84012
524-5359

U.S. National Park Service
Salt Lake Field Office
125 South State Street
Salt Lake City, Utah 84115
524-4165

Bureau of Sport Fisheries and Wildlife
Division of River Basin Studies
125 South State Street
Salt Lake City, Utah 84115
524-5056

U.S. Bureau of Outdoor Recreation
125 South State Street
Salt Lake City, Utah 84115
328-5691

Utah State Social Services
Department Health Division
44 South Medical Drive
Salt Lake City, Utah 84113
328-6111

U.S. Environmental Protection Agency
125 South State Street
Salt Lake City, Utah 84115
524-5275

U.S. Department of Transporation
Federal Aviation Administration
116 North 23 West
Salt Lake City, Utah 84116

U.S. Department of Housing
and Urban Development
Federal Housing Administration
125 South Street
Salt Lake City, Utah 84115
524-5240

Soil Conservation Service
Vernal Field Office
23 East Main
Vernal, Utah 84078

Uintah Basin Association of
Governments
Uintah Basin Planning District
26 West 2nd North
Roosevelt, Utah 84066
789-4453

Duchesne County Library
High School
Duchesne, Utah 84021
738-2211

Enginerring Library
University of Utah
University & 2nd South
Salt Lake City, Utah 84112
581-7533

Corps of Engineers
135 South State
Salt Lake City, Utah
524-4264

Division of State Lands
105 State Capitol Building
Salt Lake City, Utah 84114
328-5381

Utah Division of Wildlife
Resources
1596 West North Temple
Salt Lake City, Utah 84116
328-5081

Daggett County Library
Manila High School
Manila, Utah
784-3174

Uintah County Library
Court House Bldg.
Vernal, Utah 84078
789-0091

Vernal Field House of Natural History
235 East Main
Vernal, Utah 84078
789-3799

Soil Conservation Service,
Roosevelt Field Office
150 South 2nd East
Roosevelt, Utah
722-2051

Utah Geological Survey Library
University of Utah
Salt Lake City, Utah
581-6831

Salt Lake City Library
209 East 5th South
Salt Lake City, Utah
363-5733

U.S. Bureau of Reclamation
Office of Property & Services
125 South State
Salt Lake City, Utah 84115
524-5541

Metropolitan Water District
of Salt Lake City
Tribune Building
Salt Lake City, Utah 84115
524-5541

Utah Historical Society
603 East South Temple
Salt Lake City, Utah
328-5755

Uintah Basin Association of
Governments
26 West 2nd North
Roosevelt, Utah 84066
722-4518

Duchesne County ASCS Office
Post Office Buidling
154 South 2nd East
P.O. Box 218
Roosevelt, Utah 84066
722-2491

Carbon County Court House
Price, Utah
637-0327

Grand County Courthouse
Moab, Utah
259-5645 (Clerk)

San Juan County Courthouse
Monticello, Utah
587-2232 (Clerk)

Emery County Courthouse
Castledale, Utah
748-2465 (Clerk)

Huntington City Hall
Huntington, Utah
687-2436 (Recorder)

Ferron City Hall
Ferron, Utah
384-2350

Emery Town Hall
Emery, Utah

Bureau of Land Management
Monticello, Utah
587-2247

Division of Wildlife Resources
455 West Railroad Avenue
Price, Utah
637-3310

BRAG
179 North Main
Logan, Utah 84321
752-7242

Farmers Home Administration
Federal Building
Price, Utah
637-2628

Soil Conservation Service
P.O. Box 637
Monticello, Utah
587-2481

Division of Wildlife Resources
NE Regional Offices
Vernal, Utah
789-3103

Bureau of Land Management
Moab, Utah
259-7611

Planning & Research Associates
210 East 100 South
Salt Lake City, Utah
532-4394

Mountain Area Planners
362 East 3rd South
Salt Lake City, Utah
355-6301

Arches/Canyonlands National Parks
Post Office Buidling
Moab, Utah 84532
259-7166 (Account Clerks)

Bryce Canyon National Park
Park Headquarters
Bryce Canyon, Utah
834-5322

Capital Reef National Park
Park Headquarters
Torrey, Utah 84775

Trans. Planning Library
Department of Highways
4th South and Main
First Security Bank Buidling
Salt Lake City, Utah
328-5709

Cache County Planning & Zoning Office
179 North Main
Logan, Utah 84321
752-8327

Appendix E

Charges of Responsibility Given to Multicounty TAC groups in the 5-County and Bear River Associations of Government

CHARGE OF RESPONSIBILITIES

PROPOSED TECHNICAL ADVISORY COMMITTEE

The technical advisory committee (TAC) will constitute an interdisciplinary panel of experts from various agencies who, working together, can supply, coorelate, scrutinize, interpret, and display natural resource date and development concepts for governmental decision makers. The TAC will be directly responsive to the Bear River Association of Governments (BRAG) through its natural resources committee and staff, but will be available to serve the needs of all governmental entities.

The TAC will play a keystone role in:

I. The establishment and operation of a coordinated natural resources planning process. In so doing, the TAC will:

   A. Assist BRAG in identifying and recruiting agency resources which should be brought to bear on planning and development efforts.

   B. Carry out specific planning tasks requested by or through BRAG. These will often focus on single development projects proposed by local entities such as RC&D, individual municipalities and counties, soil conservation districts, etc.

   C. Assist BRAG and/or its natural resources committee in reviewing and evaluating proposed plans and development projects to determine their feasibility and compatibility with establised plans and priorities.

   D. On its own initiative, submit issues and recommendations to BRAG or through BRAG to its consituent governmnetal jurisdiction.

   E. Through its constituent members, provide liason, coordination and advocacy between BRAG and the respective agencies from which they come.

F. Provide a vehicle for increased correlation among the agencies represented on the TAC.

G. Fulfill other related responsibilities as requested within the limits of available time and resources.

II. Development and maintenance of a Comprehensive Natural Resources Information Center which will compile, organize, and make available all pertinent natural resource data. The TAC will accomplish this by:

A. Supplying data for the center from the files of its constituent agencies.

B. Relaying to the center pertinent new data generated by its constituent agencies in the course of their day-to-day operation.

C. Utilizing the center as a source of data to meet the needs of its own projects and those if its constituent agencies.

Appendix F

TAC Group Membership Roster From

the Bear River Association of Governments

and

Membership Roster of the Natural Resources

Library Advisory Committee of the

Wasatch Front Regional Council

MEMBERSHIP ROSTER

BEAR RIVER TECHNICAL ADVISORY COMMITTEE

CHAIRMAN

Glenn T. Baird
USU Extension Service
USU Campus
Logan, Utah 84322
Phone 752-4100 Ext. 7511

LOCAL AGENCIES

Box Elder County

Denton Beecher
County Surveyor
Box Elder County Courthouse
Brigham City, Utah 84302
Phone 723-2226

Bear Lake Regional Commission

Blount T. Farrell
Acting Director
Bear Lake Regional Commission
Fish Haven, Idaho 83261
Phone (208) 945-2333

Bear River Association of Governments

Bruce G. King
Executive Director
Bear River Association of Governments
Room 207 Cache County Courthouse
Logan, Utah 84321
Phone 752-7242

Cache County

Van J. Martin
Cache County Planner
Room 210 Cache County Courthouse
Logan, Utah 84321
Phone 752-8328

Glen Richardson
Cache County Surveyor
Room 210 Cache County Courthouse
Logan, Utah 84321
Phone 752-8327

Health Department

Willard K. Hill
Supervisor of Environmental Health
Bear River District Health Department
160 North Main
Logan, Utah 84321
Phone 752-3730

Resource Conservation and Development

R. Deane Harrison
RC&D Coordinator
142 South Main
Brigham City, Utah 84302
Phone 723-3178

STATE AGENCIES

Agriculture

Ben W. Lindsay
Department of Agriculture
State Capitol Building
Salt Lake City, Utah 84114
Phone 328-5421

Forestry and Fire Control

David C. Schen
Area Forester
170 North Main
Logan, Utah 84321
Phone 752-8701

Geological Survey

Bruce N. Kaliser
Utah Geological Survey
University of Utah
Salt Lake City, Utah 84112
Phone 581-6831

Great Salt Lake Study

Jim Christensen
Great Salt Lake Study Coordinator
Legislative Council
State Capitol Building
Salt Lake City, Utah 84114
Phone 328-5381

Highways

H. H. Richardson
Reconstruction Engineer
Utah Department of Highways
128 - 17th Street
Ogden, Utah 84401
Phone 394-8851

Lands

Mark H. Crystal
Land Specialist
Division of State Lands
State Capitol Building
Salt Lake City, Utah 84114
Phone 328-5381

Outdoor Recreation

Tharold E. Green
Recreation Planner
Utah Outdoor Recreation Agency
Room 225 State Capitol
Salt Lake City, Utah 84114
Phone 328-5691

Planning Coordinator

Douglas Kirk
Asst. State Planning Coordinator
State Planning Office
Room 118 State Capitol Building
Salt Lake City, Utah 84114
Phone 328-5245

Water Resources

Norman Stauffer
Water Resources Engineer
Division of Water Resources
435 State Capitol
Salt Lake City, Utah 84114
Phone 328-5401

Water Rights

Mike Turnipseed
Area Engineer
Utah Division of Water Rights
22 East Center
Logan, Utah 84321
Phone 752-8755

Wildlife Resources

Paul Woodbury
Conservation Officer
63 West Juniper Drive
Smithfield, Utah 84335
Phone 563-3562

Utah State University

Jay Bagley, Director or
Calvin D. Clyde, Associate Director
Utah Water Research Lab
Utah State University
Logan, Utah 84322
Phone 752-4100 Ext. 7951 or 7439

Louis A. Jensen
Extension Weed Specialist
Utah State University
Plant Science Department
Logan, Utah 84322
Phone 752-4100 Ext. 7245

Gordon N. Keller
Professor of Anthropology
Utah State University
Logan, Utah 84322
Phone 752-4100 Ext. 7661

Charles S. Peterson
Associate Professor
Department of History
Utah State University
Logan, Utah 84322
Phone 752-4100 Ext. 7163

Arlo Richardson
State Climatologist
Department of Soils and Meteorology
Utah State University
Logan, Utah 84322
Phone 752-6216

Larry Wegcamp
Assistant Professor
Landscape Architecture and Environmental Planning
Utah State University
Logan, Utah 84322
Phone 752-4100 Ext. 7345

Robert Woolley
Reference and Extension Librarian
Utah State University
Logan, Utah 84322
Phone 752-4100 Ext. 7547

University of Utah

J. Bruce Keating
Acting Director
Center for Remote Sensing and Cartography
Geography Department
University of Utah
Salt Lake City, Utah 84112

FEDERAL AGENCIES

Agricultural Research Service

Dean Plowman
Area Director
Agricultural Research Service
Utah State University
Logan, Utah 84322
Phone 752-0340

Agricultural Stabilization and Conservation Service

Philip E. Bergeson
District Director
ASCS
1320 South Main
Lewiston, Utah 84320
Phone 258-2577

Bureau of Land Management

Gerald E. Hillier
District Manager
Bureau of Land Management
1250 South Redwood Road
Salt Lake City, Utah 84104
Phone 524-5348

Bureau of Reclamation

John W. Jensen
Regional Planning Officer
Bureau of Reclamation
P. O. Box 11568
Salt Lake City, Utah 84111
Phone 524-5566

Bureau of Sport Fisheries

Lloyd F. Gunther, Manager
Bear River Migratory Bird Refuge
P. O. Box 459
Brigham City, Utah 84302
Phone 723-6283 (Home)
744-2488 (Office)

Corps of Engineers

Lee J. McQuivey
Corps of Engineers
Federal Annex Building
135 South State
Salt Lake City, Utah 84138
Phone 524-4264

Economic Research Service

Clyde E. Stewart
Agricultural Economist
Utah State University
Logan, Utah 84322
Phone 752-4100 Ext. 7304

Environmental Protection Agency

Kenneth Alkema
Room 233 Federal Building
125 South State
Salt Lake City, Utah 84138

Farmers Home Administration

Arnold Taylor
324 - 25th Street
Ogden, Utah 84401
Phone 399-6271

Forest Service

M. J. Roberts
Forest Ranger
21 West Center
Logan, Utah 84321
Phone 752-1593

National Park Service

George Church, Superintendent
Golden Spike NHS
Promontory Star Route
Corinne, Utah 84307
Phone 471-2209

Soil Conservation Service

Don Drage
Resource Conservationist
Soil Conservation Service
52 North 1st East
Logan, Utah 84321
Phone 752-6565

K. Marsel Tingey
Area Conservationist
Soil Conservation Service
52 North 1st East
Logan, Utah 84321
Phone 752-6565

U. S. Geological Survey

Wallace N. Jibson
Project Engineer
U.S. Geological Survey
22 East Center
Logan, Utah 84321
Phone 752-3161

Wasatch Front Regional Council

Natural Resources Advisory Committee

Richard Merrell	Department of Community Affairs State Capitol Building Salt Lake City, Utah 84114
Dr. Miltin C. Abrams	University Library Utah State Unviversity Logan, Utah 84322
Mayor Bill Leavitt	Alta Lodge Alta, Utah 84070
Dr. Wayne Rose	Area Coordinator Utah State University Extension 444 South 300 West Salt Lake City, Utah 84111
Craig Bigler	State Planning Coordinators Office State Capitol Salt Lake City, Utah 84114
Don Drage	Soil Conservation Service Rm. 4012 Federal Buidling 125 South State Street Salt Lake City, Utah 84111
Dale Carpenter	Division of Natural Resources State Capitol Buidling Slat Lake City, Utah 84114
George Smeath	Mountain Area Planners 362 East 300 South Salt Lake City, Utah 84111
Dr. Cyrus McKell	Environment & Man Program Utah State University Logan, Utah 84322
Graham Shirra	Weber County Planning 714 Numicipal Buidling Ogden, Utah 84401
Clayne Ricks	Salt Lake County Planning 2033 South State Street Salt Lake City, Utah 84115
Chandler St. John	U.S. Forest Service 4438 Federal Building Salt Lake City, Utah 84111
Theron Hutchings	Soil Conservation Service Rm. 4012 Federal Building

Theron Hutchings (con't)	125 South State Street Salt Lake City, Utah
Kent Hortin	Soil Conservation Services Rm. 4012 Federal Buidling 125 South State Street Salt Lake City, Utah 84111
Veron Jorgensen	Salt Lake City Planning City and County Building Salt Lake City, Utah 84111
J. Bruce Keating	Geography Department University of Utah Salt Lake City, Utah 84112
Rod Sutton	Davis County Planning Davis County Courthouse Farmington, Utah 84025
Josephy L. Moore	Wasatch Front Regional Council Davis County Courthouse P.O. Box J Farmington, Utah 84025
Ivo D. Mills	Wasatch Front Regional Council P.O. Box J Farmington, Utah 84025
Robert Woolley	Merrill Library Utah State University Logan, Utah 84322
Jim Christensen	Chairman, Great Salt Lake Technical Committee State Capitol Salt Lake City, Utah 84114

Appendix G

Examples of Public Presentations Given Concerning the Utah Natural Resources and Land Use and Information System

Examples of Public Presentations

Given Concerning the Information System

"Development of a Bibliographic Data Base for Land Use Planning." A presentation to County Commissions, Regional Technical Advisory Groups and Various officers of State Government as follows:

1. 20 April 1973 Manila, Utah Technical Advisory Group and Daggett County Commissioners.
2. 21 May 1973 Richfield, Utah Six County Association of Governments and Technical Advisory Committee.
3. 23 May 1973 Logan, Utah "Land Use Planning Workshop" sponsored by the Environment and Man Program, USU for all Associations of Government directors and Planners.
4. 24 May 1973 Farmington, Utah Steering Committee and Land Use Committee of the Wasatch Front Regional Council.
5. June 1973 Logan, Utah. Steering Committee of the Bear River Association of Governments.
6. 23 July 1973 Roosevelt, Utah. Steering Committee of the Uintah Basin Association of Governments.
7. 6 September 1973 Cedar City, Utah. Five County Association of Governments and Technical Advisory Committee.
8. 22 December 1973 Logan, Utah. Utah State University Institutional Council

"Plan of Work for Development of the Natural Resources and Land Use Information System." A follow up presentation for implementation of the overall system.

1. 7 December 1973 Roosevelt, Utah. Uintah Basin Association of Governments, Technical Advisory Committee.
2. 10 December 1973 Richfield, Utah. Six County Rural Development and Technical Advisory Committee
3. 24 January 1974 Farmington, Utah. Wasatch Front Regional Council, Natural Resources Library Committee.
4. 8 February 1974 Price, Utah. Southeastern Association of Governments Rural Development Committee
5. 12 February 1974 Kanab, Utah. Kane County Technical Advisory group
6. 13 February 1974 Kanab, Utah. Kane County Citizens Advisory Group
7. 14 February 1974 Cedar City, Utah. Five County Technical Advisory Group.
8. 15 March 1974 Logan, Utah. Bear River Association of Governments Rural Development Committee.
9. 24 June 1974 Logan, Utah. Bear River Technical Advisory Committee
10. 8 April 1975 Logan, Utah. Bear River Technical Advisory Committee.

"The Natural Resources and Land Use Information System and Its Facilitating Role Among State and Federal Agencies."

1. 15 February 1974 Salt Lake City,. The State Rural Development Committee.
2. February 1974 Salt Lake City. State Director and Department Heads of the Bureau of Land Management.
3. March 1974 Salt Lake City. State Director and Department Heads of the Soil Conservation Service.

"How the Natural Resources and Land Use Information System will Facilitate Water Study Coordination." A presentation to the Bear River Association of Governments Technical Advisory Group and Natural Resources Committee and the Tri-State Citizens Advisory Committee. Logan, Utah. 26 July 1974. University Center Auditorium.

"A Computer Based Retrieval System for Federal, State and Municipal Documents: The Utah Land Use Bibliography,"presented to the Utah Academy of Sciences Arts and Letters, March 28, 1975 Salt Lake City, Utah.

"On Line Demonstration of the SEARCH retrieval system and overall status report on the Utah Natural Resources and Land Use Information System."

1. April 17, 1975 Farmington, Utah. Wasatch Front Regional Council Land Use and Water Committee
2. April 21, 1975 Salt Lake City, Utah. Utah Division of Water Resources.

"Overview of the Utah Natural Resources and Land Use Information System." a special presentation to:

1. Governors Advisory Council on Community Affairs, October 1974.
2. State Rural Development Committee and William Erwin, Asst. U.S. Secretary of Agriculture. May 15, 1975

"Utah Natural Resources and Land Use Information System." Slide tape presentation, presented to the Western States Soil Conservation Service Inservice Training Conference at Portland, Oregon. June 18, 1975

Appendix H

Sample Listing of Users, and User Requests filled by the Information System

Sample Listing of

Users and User Requests

User	User Request
6-County AOG Richfield, Utah	Literature search on the impact of a freeway bypass at Nephi, Utah
Capital Reef National Park Bicknell, Utah	Listing of all land use studies pertaining to the 5-county and 6-county area
Golden Spike National Monument Promontory, Utah	Land use studies pertaining to Box Elder County
U. S. Forest Service Ogden, Utah	Listing of all pertinent studies pertaining to the Southeastern area of Utah
Utah Division of Water Resources Salt Lake City, Utah	All land and water studies pertaining to the Virgin River in Utah and Nevada
Desert Research Institute Las Vegas, Nevada	All land and water studies in the 5-county area
Civil Engineering Department Utah State University	A listing of all land use studies concerning Cache Valley
Herald Journal Logan, Utah	A listing of all water studies pertaining to Cache Valley
State Planning Coordinator Salt Lake City, Utah	A listing of all studies dealing with the Central Utah Project
Bear River AOG	A listing of all studies pertaining to Park Valley in Box Elder County
Utah State Department of Highways	A listing of studies dealing with the economic impact of a freeway from Elwood to Plymouth, Utah.

Appendix I

Script for the Slide Tape Presentation on the Natural Resources and Land Use Information System

Tray set on # 1 (Black Slide)	1. Music up Changes at 5 second intervals
<u>High Contrast Caption</u> over scenic shot of Utah "The Natural Resources &"	2. Music continues
<u>High Contrast Caption</u> over scenic shot of Utah "Land Use Information System"	3. Music continues
<u>High Contrast Caption</u> yellow background "Project Director:" "Robert Woolley"	4. Music continues
<u>High Contrast Caption</u> yellow backgound "Narrated by:" "Robb Russon"	5. Music continues
<u>High Contrast Caption</u> yellow background "Produced by:" "Anne Marie Jones	6. Music continues and softly fades as narration begins
<u>High Contrast Mask</u> C/U child looking at globe	7. We live, today, in a world encompassed by vast amounts of information and knowledge.
Student working in a science laboratory	8. This knowledge arcerlation has helped to answer many questions and solve a number of problems. Yet, this knowledge explosion has created many accessibility gaps.

High Contrast
Paper Monseter

9. While a great amount of information on a variety of subjects exists, accessibility to such information is not always avaliable. In order t

Individual studying hillside

10. make intelligent decisions concernin land use planners, land managers, local officials and citizens need information and

Building site on hillside with eroded land

11. knowledge concerning the opportuniti and contraints of the area's resources. To this end,

High Contrast
"Man's uses of the land"

12. in 1971 an experimental program was initiated to explore ways to provide an information base that could facilitate a meaningful land use program in Heber Valley, Utah.

The Heber Valley

13. This program, entitled the Heber Valley Natural Resources Inventory and Evaluation Study, provided means by which local and other decision makers could work closely

Fall scene of Logan Canyon

14. with natural resource personnel in gathering data needed to formulat flexible and realistic land use plans. Additionally, the developmen of an information system, on a state wide basis

High Contrast Mask

Large group of people

15. was a concern of many individuals from broad multi-diciplinary levels.

High Contrast Mask

Large assembly of people

16. These included unversity personnel, federal agencies, state agencies, elected officials and citizens. Through their efforts the

High Contrast Caption

Natural Resources and Land Use Information System

17. Natural Resources and Land Use Information System was established to facilitate identification, avaliability and use of vital land planning information on a state wide basis.

Exterior of Merrill Library

18. The program became operational through the efforts of the Merrill Library and Learning Resources Program at Utah State Unversity in cooperation

Collage of agency symbols and trade marks

19. with many agencies of state and federal government and with the direct support of local officials throughout the state.

High Contrast

Picture of money

20. Funding was applied for and receive from both the Rockefeller and Kellog Foundations.

Etch Bleach

Rockefeller Logo over positive slide of urban area of the state

21. The Rockefeller funding provided for and information system for the Wasatch Front Association of Governments which is the most populous area of the state.

Kellog Logo	22. The Kellog Foundation funded a proposal for the development of an information system to meet the needs of the rural areas of Utah. The projected goal
<u>High Contrast Caption</u> "Collection" "Organization" "Dissemination"	23. of the information and retrieval system is to establish a systematic process for the collection, organization and subsequent dissemination of natural resources information
Individual using BLM material	24. for evaluation by land users, planners
Elected personnel	25. elected officials
State and federal employees	26. state and federal agencies,
large group of private citizens	27. and the private citizen. In simple terms, the
<u>High Contrast Caption</u> "identify & locate"	28. system is designed to identify and locate
Inside of material	29. materials and reduce the information to a level of understanding that is common to the lay individual
Map of local area	30. as well as the professional.
<u>High Contrast</u> People Using System	31. The ultimate objective is to facilitate ready access to information on a demand basis. More specifically, the objectives of the information system are:

High Contrast
Map showing multi county
areas of the state

C/U thesaurus

High Contrast Mask
C/U Bibliography

Dialog System

High Contrast
Request form on
information needed for specific areas.

High Contrast
Multi-county areas
of the state

Wasatch Association of
Government boundary lines

Organization chart
showing relationship

32. One: to establish a land use planning resource depository library in each of the multi-county regions within the state of Utah.

33. Two: to create a controlled vocabulary and a computer retrieval system to be used in indexing and locating the material housed in the regional libraries.

34. Three: to produce a bibliography for dissemination to the multi-county regions of the state and

35. F ur: to provide research services to Utah communities

36. on problems dealing with land use planning.

37. Objective one centers around the multi county associations of governments within the state.

38. These associations are composed of 3-5 counties with similiar characteristics for planning purposes. At present,

39. the state has seven multi-county agencies which are l[illegible] to the state government th[illegible]e office of the community affa[illegible] and through the governor's advisory council

County commissioners	40. Each county is represented by the commissioners on the governing board of the multi-county. It is within the offices
Executive Director	41. of the executive director of each of these multi-county organization that the responsibility for implementing the resource library for a given area will be established.
Etch Bleach Subject/Geographic Entry	42. The second objective consists of establishing a controlled vocabulary or thesaurus as the key to locating information by subject and geographic areas. The ability
High Contrast Caption User terms	43. to use and understand the thesaurus is essential. Just as subject headings in a card catalog serve as guides to information,
High Contrast Caption Broader and Related Terms	44. a thesaurus is designed to tie related terms together and help the user of the system come into sync with the language of the documents. Thus
High Contrast Caption Various Terms	45. natural language terms refer to words or phrases used by a particular author within the title of a specific document. For example, if an individual wishes to find information

High Contrast Mask
Land Surveyor

46. on land surveying he could look under that general term. However, under the same heading, natural language terms may also be found such as

High Contrast Caption
Cadastral Surveying
Easements
Photogrammetry

47. cadastral surveying, easements or photogrammetry. All of these could be utilized to locate additional information. The understanding and use of the thesaurus will provide the user with the maximum information avaliable.

C/U Bibliography

48. Objective three encompasses the production and dissemination of bibliographies pertinent to the needs of each multi-county depository library.

Fiche copy of bibliography

49. A bibliography of all Utah land use information will be housed in several state and federal agencies as well

Exterior of Merrill Library

50. as the Merrill Library and Learning Resources Program, which will serve as the control center. Functionally, the information system

Bibliographic collection process

51. is dependent on bibliographic imput from planners, consultants, private citizens and professionals in various state and federal agencies within the state.

Members of TAC team	52. A consortium of technical experts was organized within each of the seven multi-county areas. These committees referred to as TAC (technical advisory committee) are composed
Individual representative	53. of representatives from all federal, state and private organization involved in land use planning in given areas. The composition of the committee varies from area to area. The
TAC responsibility	54. basic task of creating the bibliography was done by the TAC members and the Area Rural Developm Committee which existed in all seve regions.
<u>High Contrast Caption</u> Responisve/Responsible	55. Responsibility for the identificati and location of information that would be os use to the state wide system was assumed by the area TAC members.
C/U Volumes of information	56. Three basic types of information were categoried by the TAC groups pertaining to their particular geographic areas. These included
<u>High Contrast Mask</u> Final Report	57. historical data,
Individual working on project	58. on-going research

High Contrast Mask
Question of future studies

59. and anticipated research. With these types of items avaliable it is possible to have an information system that is up-to-date and therefore more functional. Originally,

High Contrast Caption
Natural Resources

60. the bibliography was to be limited to natural resource data. However, the scope of the bibliography eventually grew to include all pertinent resource documents

High Contrast Caption
Natural Resources
History

61. dealing with natural resources, history

High Contrast Caption
Natural Resources
History
Transportation
Economics

62. transportation, economics

High Contrast Caption
Complete bull's eye of all the information

63. demography and other related subject areas.

High Contrast
Select, acquire, index and distribute cycle

64. To eliminate confusion in the collection process basic procedures and guidelines were established. These procedures were systemically designed to facilitate the collecting process and ensure its comprehensiveness.

Dana at board outlining procedures

65. The initial effort to compile the bibliography involved a four step operation.

<u>High Contrast Caption</u>
Organize TAC

66. Step one was to organize the TAC groups. Secondly,

<u>High Contrast Caption</u>
Organize TAC
Explain System

67. each group received a detailed explanation of the Natural Resources and Land Use Information System.

<u>High Contrast Caption</u>
Organize TAC
Explain System
Assign Members

. Next, the executive director of each of the multi-county agencies

68. made assignments to the members of the TAC teams to assemble all information within their agenices that would be of use to the respective areas.

<u>Etch Bleach</u>
Submit information over positive slide of collection form

69. Finally, the information identified in each agency was submitted on a standardized form and these forms were then given to each executive director who turned them over

Merrill Library personnel checking forms

70. to Merrill Library personnel for review and compilation. The basic

Individuals selecting materials

71. responsibility for determining what specific documents are to be included in the bibliography rests with the TAC members. The selection

TAC members selecting material	72. and reveiw of the material is done on a regular basis by these groups. Specific guidelines for screening and selecting the materials were established early so that all materials selected
<u>High Contrast Caption</u> "be of value & pertinent"	73. would be of value and pertinent to the planning concerns. While the goal of the statewide informatio
Computer print out	74. system is to have a comprenhensive listing, ultimate success at the multi-county level will hinge on the ability
C/U earthquake study	75. of the system to focus on relevant comprendable information.
Fiche copy of bibliography	76. After the initial bibliography in each of the regional areas has been compiled a decision has to made as t
Specific item for Wasatch Council	77. which items will be housed at the local level and which will remain at
U.S. Forest Service Symbol	78. designated federal and state agencie Decentralization of pertinent regio information is a desired objective. The TAC
<u>High Contrast Mask</u> Collage of useless material	79. groups must also screen out uesless or irrevlevent items and
Individual at microfilming machine	80. identify which items should be microfilmed

Individual at copier	81. copied
Government document request form	82. or acquired through other means. The TAC groups are also charged with the job of
New arriving materials at multi-county area	83. identifying new materials within their agencies so that the bibliography will remain current and be a true information system.
Overall listing	84. A computer print out serves as a listing for all materials.
Overall listing fiche copy	85. Each of these centers will receive monthly updates.
Organization of regional libraries...guidelines	86. Each regional library determines the policies and procedures for use of their materials. The major concern of each library,
Organized material in center.	87. however, is to organize its holdings so that it will continually serve all concerns.
MLLRP link to other areas	88. Additionally it will be possible to obtain materials on an interlibrary loan basis. The control center will handle such requests or individual libraries may request materials from one another.
	Music softly fades in.
Flowing stream surrounded by trees	89 Intelligent use and management of natural resources is dependent on our understanding of

Farm land and machinery	90. resource capabilities and the implications of alternative land use.
Logan Canyon	91. In order to balance natural resource capabilities with environmental quality and the
Crowded city at night	92. demands of modern living, accurate information must be mane avaliable to facilitate
Residental development	93. informed policy and decision making at all levels of operation. It is toward
Sunset	94. this goal that the Natural Resources and Land Use Information System is directed.
Black Slide	95. Music becomes louder and ends after 5 seconds.